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October 1980

FINAL TECHNICAL REPORT PR 80-25-315.43

# AN ASSESSMENT OF THE IMPORTANCE OF TECHNOLOGIES TO MILITARY CAPABILITIES



Richard R. Stewart Gary A. Frisvold

DECISIONS and DESIGNS, INC.



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FINAL TECHNICAL REPORT PR 80-25-315.43



## AN ASSESSMENT OF THE IMPORTANCE OF TECHNOLOGIES TO MILITARY CAPABILITIES

by

Richard R. Stewart and Gary A. Frisvold



Prepared for

Office of the Secretary of Defense for Research and Engineering

Sponsored by

Defense Advanced Research Projects Agency Contract MDA903-80-C-0195 ARPA Order No. 3859

October 1980

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The analysis described in this report is limited to three mission areas: land-based ICBM strike, tactical air warfare (close air support and battle-field interdiction), and theater nuclear warfare (air delivered). In each of the three areas the technologies are prioritized on the basis of their importance to the U.S. and their potential contribution to Soviet capability. It is concluded that the ranking of technologies resulting from the analysis provides a valuable input into decisions on export restrictions. If this approach is to be extended to other mission areas or lists of technologies, the lessons from this analysis should be applied.



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#### AN ASSESSMENT OF THE IMPORTANCE OF TECHNOLOGIES TO MILITARY CAPABILITIES

#### 1.0 INTRODUCTION

In the Export Administration Act of 1979, Congress required the Department of Defense to identify lists of critical technologies in a form that can be used in export control. In response to this requirement, the Under Secretary of Defense (Research and Engineering) established a project to link technologies and mission areas by quantifying the value of each substantially critical technology with regard to its likely impact on the future military balance.

To support the technologies analysis effort, a Mission-Technology Correlation Task Force (MTCTF) was established to be chaired by Dr. Paul J. Berenson, Deputy Assistant to the Secretary of Defense (Atomic Energy). Specific objectives of the MTCTF are to:

- o establish clear relationship from a "top-down" perspective between military missions and the key technologies underlying mission capability;
- o select mission-technology correlation assessment methodologies relating military mission capability to the weapon systems providing that capability, and finally to the technology providing the system capability; and
- o identify and prioritize technologies for each U.S. and Soviet mission.

Decisions and Designs, Inc. (DDI), had examined a problem quite similar to this one for the Director of the Defense Advanced Research Projects Agency (DARPA) in 1978. Dr. Berenson read the DDI report and requested similar technical assistance for the current MTCTF analysis.

The analysis described in this report is purposely limited to three mission areas: land-based ICBM strike, tactical air warfare (close air support and battlefield interdiction), and theater nuclear warfare (air-delivered). The limitation is based upon several factors. First, a good sense of the importance of various technologies could be obtained by looking at these three mission areas. Second, for an initial small investment, it would be possible to test the methodology and, if successful, additional mission areas could be examined later on. In each of the three areas the technologies are prioritized on the basis of their importance to the U.S. and their potential contribution to Soviet capability. Thus, an important technology which could be applied to the development of an improved Soviet military capability would receive a high score and thus place high on the list of those technologies which should be restricted. The assessments used in the ICBM mission analysis reflect the views of a Defense Intelligence Agency Soviet ICBM specialist. The assessments used in the tactical air and theater nuclear analysis reflect the views of U.S. research and engineering specialists.

The next section of this report describes in more detail the technical approach used in this analysis. Section 3.0 describes the results achieved and prioritizes the list of technologies which should not be exported.

Fossum, R. Evaluation of Strategic-Force-Related Technologies, prepared for the Defense Science Board, July 1978.

#### 2.0 METHODOLOGICAL APPROACH

#### 2.1 Model Structure

The methodology used in this analysis, Multi-Attribute Utility Analysis (MAUA), is employed in studies requiring the quantification of complex alternatives that have values on a large number of alternatives. In this analysis, each technology could retentially improve Soviet capability in several areas. For example, plasma spraying technology has the potential to enhance Soviet ICBM development programs pertaining to reentry vehicle heat shields and nose tips, and to bombs, bomblets, and rockets. MAUA provides a methodology for quantifying the value of each of these contributions and combining them to obtain an overall quantification of the value of the technology.

A MAUA model is hierarchical in nature, starting with the specified top-level factor for which an overall score is desired. This factor is successively decomposed into subfactors in descending levels of the hierarchy, such that each successive level is more specific than the preceding one. At the lowest level of the hierarchy are subfactors for which scores are directly assessed by the appropriate experts. For this particular problem, three hierarchical structures (or models) representing mission areas were formulated. The three structures (one for ICBM Forces, one for Air Warfare Forces, and one for Theater Nuclear Forces) are shown in Figures 2-1, 2-2, and 2-3.

Referring to the structure for Tactical Air Warfare as an example (Figure 2-2), the elements of the problems are first separated into Surveillance/Targeting/Damage Assessment and Weapons Delivery. These are identified as 1.1 and 1.2. Surveillance/Targeting/Damage Assessment is further

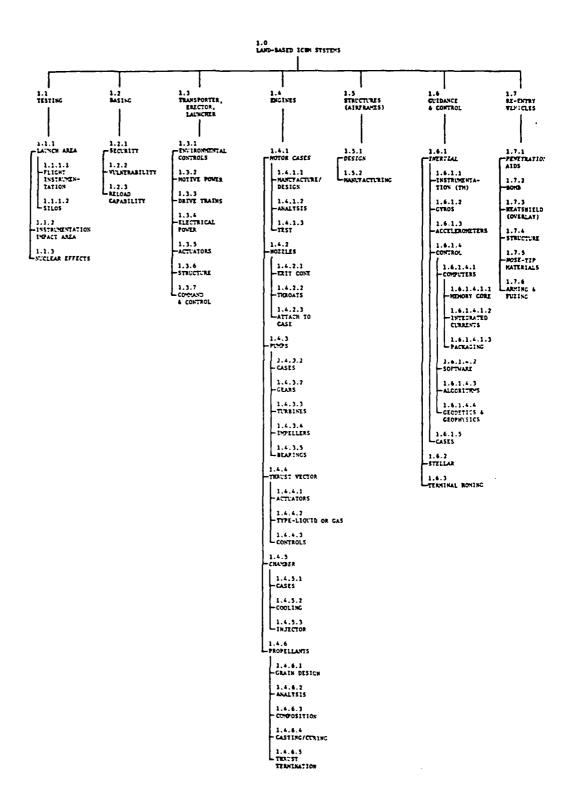


Figure 2-1
ICBM STRUCTURE

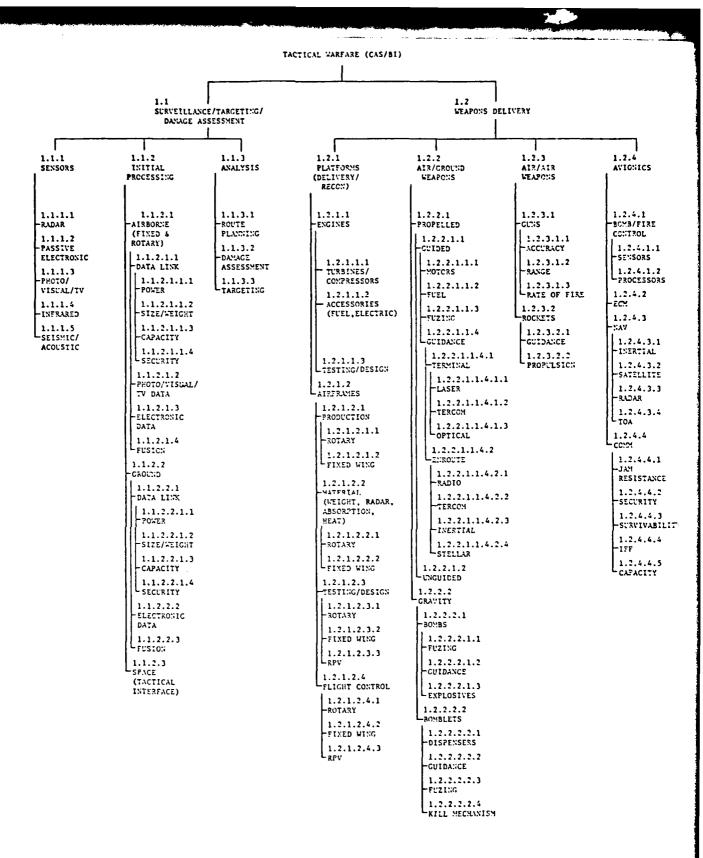


Figure 2-2
TACTICAL AIR STRUCTURE

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1.4.2.1 1.4.2.2 1.4.2.2 1.4.2.3 4.01.1100 1.4.2.4 1.4.2.4 1.4.2.4 1.4.2.4 1.4.2.4 1.4.2.5 1.4.2.5

1.1.3.1 ROTE PLANTING 1.1.3.2 DAVIGE ASSESSEDT 1.1.3.3 LANGETING

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decomposed into Sensors, Initial Processing, and Analysis, identified as 1.1.1, 1.1.2, and 1.1.3. Similarly, Sensors is divided into Radar, Passive Electronic, Photo/Visual/TV, Infrared, and Seismic/Acoustic. For these five types of sensors, the relative values of applicable technologies can be directly assessed. Similarly, the remainder of the structure is further decomposed until the values of technologies can be assessed at the lowest level of the hierarchy.

Once a hierarchical structure has been created which decomposes high-level factors into subfactors that correspond to observable elements, several steps must be accomplished. The first is determination of the combination rules by which the elements combine to determine the value of those subfactors. Such rules take on different forms depending on the value dependencies among elements. Independent elements can be combined additively, whereas more complex combination rules, often multiplicative in nature, must be utilized to incorporate value-wise dependencies. Similarly, combination rules must be established for subfactors at all levels of the hierarchy. The combination rules, once properly formulated, provide for aggregation of values up through the hierarchy.

Frequently, subfactors which appear to be very dependent can be appropriately assumed to be value independent if only marginal changes in value are considered. For example, in Figure 2-2, both sensors and initial processing are required for surveillance, targeting, and damage assessment. One capability without the other has essentially no value. However, by first assuming some initial capabilities in both sensors and processing, and then evaluating relatively small improvements in sensor or processing capability, the values of these improvements can be combined additively.

#### 2.2 Assessments for the Model

Given the structure with appropriate combination rules, several additional steps are necessary. First, plausible ranges must be defined which encompass all variations likely to be observed. These ranges are necessary to allow meaningful judgments about the value of a particular technology to an element of the mission area. A similar judgment or assessment must be made about each technology for each subelement of the structure. Such judgments are made using a 0-to-100 scale where different points along the scale represent the potential value of a technology to an element of the structure. For this analysis, the zero represents current capability and the 100 represents the improved capability given access to the advanced U.S. technology.

Also assessed for each element is its relative importance. For this analysis, weights are used to reflect the importance of all the technologies to the U.S. weapons development program or the importance (size) of the gap which exists between the U.S. and the USSR weapons capability. For the ICBM analysis, weights were assessed by a U.S. intelligence expert. A large number indicates that a large gap exists and that, potentially, the Soviets could be helped if advanced technology were made available to them. The values reflect the percent of the gap that could be filled if one particular U.S. technology were made available.

To conduct the evaluation, the model is implemented on an interactive computer using graphic displays. Because the model structure is, by nature, traceable and visible, it can be quickly examined level by level, factor by factor, for purposes of understanding observed outputs. (See Figures 2-4a and b, printouts which show the level-by-level weights and values for eight technologies applicable to the Tactical Air Warfare problem.) Importance weights, value functions,

1)	WEAPONS (	NT 33) 28) 39)	001 6.50 .76 .00 2.36	002 1.25 .00 .00	003 12.50 9.35 .00 6.72	005 4.88 .00 .00	007 3,13 .00 .00	008 6.89 .10 .00 2.30	010 8.00 1.88 .00 3.16	012 7.59 .96 .00 2.74
4.4	- TAC WAR	~ P1	.ATFORM							
	FACTOR	ωT	001	002	603	005	007	800	010	012
1)		63)	8.00	2.00	8.00	6.00	5.00	5.00	5.00	12.00
		38)	4.00	.00	20.00	3.00	.00	10.00	13,00	.00
	TOTAL		6.50	1.25	12.50	4.88	3.13	6.88	8.00	7.50
( 7	- TAC WAR	- 1.11	EAPONS							
1 4 4-	FACTOR	wT .	001	902	003	005	007	608	010	012
1)		34)	.59	.00	22.18	.00	.00	.00	.00	1.18
		47)	1.21	.00	4.04	.00	.00	.21	4.04	1.21
		20)	.00	.00	.00	.00	.00	.00	.00	.00
	TOTAL		.76	.00	9.35	.00	.00	.10	1.88	.96
	.1 ~ TAC WAR	, _	MEARONS	- C	TM\DNZA	2.3				
شدها	FACTOR	wT	001	002	003	005	007	008	010	012
•		41)	.00	.00	11.00	.00	.00	.00	.00	.00
		41)	1.00	.00	30.00	.00	.00	.00	.00	2.00
	BMB/BMBLTS *		1.00	.00	30.00	.00	.00	.00	.00	2.00
0,	TOTAL		.59	.00	22.18	.00	.00	.00	.00	1.18
4 7	.2 - TAC WAR		MEABONS	_ T	NTERNAL	9				
1	FACTOR	TW	001	002	003	005	007	008	010	012
4.5	WARHD/CONV *		3,00	.00	10.00	.00	.00	.00	10.09	3.00
		21)	.00	.00	.00	.00	.00	1.00	.00	.00
		38)	.00	.00	.00	.00	.00	.00	.00	.00
0.	TOTAL		1.21	.00	4.04	.00	.00	.21	4.04	1.21
4 2	.3 - TAC WAR	» _	HEARANG	C	UIDANCE					
1 . 4	FACTOR	์ มา	001	605	003	005	007	800	010	012
4.1		( 33)	.00	.00	.00	.00	.00	.00	.00	.00
	PASV ELTRN *		.00	.00	.00	.00	.00	.00	.00	.00
	ELCTR OPTC *		.00	.00	.00	.00	.00	.00	.00	.00
σ,	TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

Figure 2-4a LEVEL-BY-LEVEL DISPLAY

1.3	- TAC WAR	- C3/	I							0.45
	FACTOR	WT	001	005	<b>003</b>	005	007	008	010	012
1)	EW *(	9)	.00	.00	.00	.00	.00	.00	.00	.00
		10)	.00	.00	.00	.00	.00	.00	.00	.00
3)		• 22)	.00	.00	.00	.00	.00	.00	.00	.00
4)		39)	.00	.00	.00	.00	.00	.00	.00	.00
		20)	.00	.00	.00	.00	.00	.00	.00	.00
٠,	TOTAL		.00	.00	.00	.00	.00	.00	.00	.00
1.3	.2 - TAC WAR	- (	3/1	- NA	v					
	FACTOR	WT	001	002	003	005	007	008	010	012
1)	RADAR *(	42)	.00	.00	.00	.00	.00	.00	.00	.00
	PASV FLTRN *(		. ଚନ୍	.00	.00	.00	.00	.00	.00	.00
3)	ELCTR OPTC *(	25)	.00	.00	.00	.00	.00	.00	.00	.00
	TOTAL.		.00	.00	.00	.00	.00	.00	.00	.00
1.3	.4 - TAC WAR	- (	C3/I	~ .su	IRV					
	FACTOR	WT	001	002	003	005	007	800	010	012
1)	RADAR *(	48)	.00	.00	.00	.00	.00	.00	.00	.00
2)	PASV ELTRN *(	24)	.00	.00	.00	.00	.00	.00	.00	.00
3)	ELCTR OPTC *(	29)	.00	.00	.00	.00	.00	.00	.00	.00
	TOTAL.		.00	.00	.00	.00	.00	.00	.00	.00
1.3	.5 - TAC WAR	- (	23/1	~ TA	RGETING	;				
	FACTOR	WT	001	002	003	005	007	998	010	012
1)	RADAR *(	29)	.00	.00	.00	.00	.00	.00	.00	.00
2)	PASV ELTRN *(	14)	.00	.00	.00	.00	.00	.00	.00	.00
3)	ELCTR OFTC *(	57)	.00	.00	.00	.00	.00	.00	.00	.00
	TOTAL.		.00	.00	.00	.00	.00	.00	.00	.00

Figure 2-4a (Con't.)
LEVEL-BY-LEVEL DISPLAY

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٨	NODE		001	003	172 800	005			010	012
1	TAC WAR	(WT:100)								
1.1 -	PLATFORM	(WT: 33)								
1.1.1 -	ENGINES	(WT: 63)	8	2	8	6	5	5	5	12
1.1.2 -	AIRFRAMES	(WT: 38)	4	0	20	3	ō	10	13	Õ
1.2 -	WEAPONS	(WT: 28)				_	_			-
1.2.1 -	CASNG/MTRS	(WT: 34)								
1.2.1.1 -	ะ เกพร	(WT: 41)	0	0	11	0	0	0	0	0
1.2.1.2 -	ROCKETS	(WT: 41)	1	0	30	0	Θ	0	0	2
1.2.1.3 -	ST.IBMB/BMBLTS	(NT: 18)	1	0	30	0	Θ	0	0	2
1.2.2 -	INTERNALS	(WT: 47)								
1.2.2.1 -	- WARHD/CONV	(WT: 40)	3	0	10	0	0	0	10	3
1.2.2.2 -	FUZING	(WT: 21)	0	0	0	0	0	1	0	0
1.2.2.3 -	PROPELNTS	(WT: 38)	0	0	0	0	0	0	0	0
1.2.3 -	GUIDANCE	(WT: 20)								
1.2.3.1 -	RADAR	(WT: 33)	0	0	0	0	0	0	0	0
1.2.3.2 -	PASV ELTRN	(WT: 11)	0	0	0	0	0	0	0	0
1.2.3.3 -	ELCTR OPTC	(WT: 56)	0	0	0	0	0	0	0	0
1.3 -	C3/I	(NT: 39)								
1.3.1 -	EW	(WT: 9)	Θ	0	0	0	0	0	0	0
1.3.2 -	NAV	(WT: 10)							_	•
1.3.2.1 -	RADAR	(WT: 42)	Ø	0	0	0	0	0	0	0
1.3.2.2 -	PASV ELTRN	(WT: 33)	Ö	Ö	Ö	Ö	ō	ō	ő	ő
1.3.2.3 -	ELCTR OFTC	(WT: 25)	0	0	0	0	0	0	0	0
1.3.3 -	COMM	(WT: 22)	0	0	0	0	0	0	0	Ó
1.3.4 -	SURV	(W1: 39)								
1.3.4.1 ~	RADAR	(UT: 48)	0	0	0	0	0	0	0	0
1.3.4.2 ~	PASV ELIRN	(WT: 24)	0	0	Θ	0	0	0	Ó	Ō
1.3.4.3 -	ELCTR OFTC	(UT: 29)	0	0	0	0	0	0	0	Θ
1.3.5 ~	TARGETING	(WT: 20)								
1.3.5.1 -	RADAR	(UT: 29)	0	Θ	0	0	0	0	0	0
1.3.5.2 ~	PASV ELTRN	(WT: 14)	0	0	0	0	0	0	Ó	Ö
1.3.5.3 -	ELCTR OPTO	(WT: 57)	0	0	0	0	Θ	Ö	0	Ö
									-	

Figure 2-4b
LEVEL-BY-LEVEL DISPLAY

and combination rules can be examined for validity. The reasons for value judgments used in the model can also be stored in the computer and made accessible to the analyst. Disagreements about weights or other inputs can be quickly resolved by conducting sensitivity analyses and changing whatever inputs are in question.

#### 3.0 RESULTS OBTAINED FROM THE ANALYSIS

#### 3.1 The ICBM Technology-Related Analysis

The structure for land-based ICBM strike forces (Figure 2-1) was developed with the assistance of staff personnel from the offices of the Deputy Under Secretary of Defense for Research and Engineering (Strategic and Space Systems). As noted earlier, the weights used to reflect areas of Soviet strengths and weaknesses are based upon inputs from a Defense Intelligence Agency ballistic missile specialist. The scores used to reflect the potential value of a particular technology to the Soviets are based upon discussions with U.S. research and development personnel, as well as the DIA missile specialist. All of the weights and scores used in the ICBM analysis are displayed in matrix form in the printout of the ICBM structure in Appendix A. appendix, the number at the top of each column corresponds to one of the technologies in Table 3-1. For example, the first column gives the scores for Technology #001, Deep-Drawn, Thin Walled Metal Parts Design. These scores are multiplied by the importance weights to obtain summary scores for the technologies. For example, Technology 001 was assessed a score of 15 for Node 1.4.1.1, Manufacture/-Design of Motor Cases for Engines. The weight for Node 1.4.1.1 is 83 percent of the importance of Node 1.4.1, Motor Cases. Since Technology 001 applies to no other factor under Motor Cases, the summary score for Motor Cases for Technology 001 is the product of 15 and 83 percent, or 12.5. Continuing up the hierarchical structure, Motor Cases represents 32 percent of the importance under Node 1.4, Engines. Multiplying this weight (32) times the summary score for Motor Cases (12.5) gives the summary score for Technology 001 for Engines (4.04). The final step multiplies the summary score for Engines by the weight for Engines to yield the overall score (.81) for Technology 001.

Referring to the ICBM printout (Appendix A), there are 46 columns representing 46 different technologies from the list of 102 that was compiled for this project. The list of 102 technologies (Table 3-1) represents a further refinement of a list prepared by the Institute for Defense Analysis (IDA) for the MTCTF. The "refined" list is based upon discussions with personnel from DUSD(R&E) who provided the assessments for the three analyses. It contains additions, deletions, and refinements of statements defining the technologies in the original list obtained from IDA.

#### 3.2 General Comments Concerning the Analysis

During the time available for this analysis, it was not possible to prepare a completely satisfactory listing of all the technologies which should be considered. The selection of technologies and how they are defined has a significant impact on the results. For example, a technology can be defined as a general area of interest or as several very specific interests. In the case of "composites," it can be defined and listed as "composite technologies" (which was done for the Tactical Air and Theater Nuclear analysis), or as several different technologies such as "windings," "boron fibers," "bondings," and so on. The grain size affects results; large grain size (broad definitions) impacts many different areas of weapon system development and scores higher than a more specifically defined subset of a technology. Time permitting, the best solution would be to define each technology as specifically as possible, score each one individually, and combine the resulting scores into more workable general descriptions.

Another problem with the list of technologies is to avoid the apples, oranges, and lemons dilemma. For example, it is easy to mix and difficult to compare products (microwave tubes) with processes (oralloy production) with engineering

DEEP DRAWN, THIN WALLED METAL PARTS DESIGN	001
BEARINGLESS ROTORS	002
COMPOSITE TECHNOLOGIES (WINDINGS, BONDINGS, ETC.)	003
ELECTROSTREAM HOLE DRILLING	004
HIGH PERFORMANCE WELDING	005
HIGH VACUUM PROCESSES	996
HOT ISOSTATIC PROCESSING NON-DESTRUCTIVE EVALUATION TECHNOLOGY	007 008
NON-DESTRUCTIVE EVALUATION TECHNOLOGY INSPECTION OF ADVANCED COMPOSITE STRUCTURES	000
INTERIOR OF MEANING TOOLS	009
ACED CYDO TECHNOLOGY (A CUDGET OF AEA)	010
NON-DESTRUCTIVE EVACUATION TECHNOLOGY INSPECTION OF ADVANCED COMPOSITE STRUCTURES NUMERICAL CONTROL OF MACHINE TOOLS LASER GYRO TECHNOLOGY (A SUBSET OF \$50) VACUUM CASTING (AIR COOLED TURRINE BLADES) VAPOR DEPOSITION AMORPHOROUS METALS	011 012
MADDE DEEDSTIIN THIN COULED TORBINE DEHIES?	013
ANDERDEDIG METALS	014
40000N E18E00 (A CUBCCT OC #7)	015
SUPPORTION/EPORION RECIETANT POATTNER	016
BORON FIBERS (A SUBSET OF \$3) CORROSION/EROSION RESISTANT COATINGS HIGH-TEMP COATINGS FOR SUPER ALLOYS/TITANIUM METAL MATRIX COMPOSITES (CARBON-CARBON,ORGANIC)	017
METAL MATRIX COMPOSITES (CARRON-CARRON GREANIC)	018
OPTICAL THIN FILM MATERIALS	019
POLYAMIDES (INCLUDING KEVLAR)	020
POLYMERS (INC PIEZO-ELECTRIC, PYROFLECTRIC, FTC)	
POWDER METALLURGY (E.G., HIGH COOLING RATE)	055
RADIATION DETECTION MATERIALS	023
BOLTS OTATE MIDEOUS TERMINAL DEV	024
DLID STATE MICROWAYE TECHNICOGY  JUTRAHIGH CARBON STEELS (SUPERPLASTICITY)	025
HIGH ENERGY STORAGE (ACCUMULATORS)	026
IMAGE ENHANCEMENT TECHNIQUES	027
SOLID STATE ELECTRO-OPTICAL DETECTORS	028
ISOTOPIC/MOLECULAR COMPOSITION	029
BONDING AGENTS AND BINDERS	030
ADVANCED AIRFOIL AND THREE-DIMENSIONAL WING DESIGN	031
CONTROL CONFIGURED VEHICLE (FLY-BY-WIRE)	033
SEGMENTED-MAGNET MOTORS AND GENERATORS	033
CENTRIFUGAL COMPRESSORS FOR SMALL TURBINE ENGINES	034
ELECTROLYTE BATTERY DEVELOPMENT	035
PROPULSION CONTROLS, MATERIALS AND SYSTEMS	036
PLATFORM STARILIZATION	037
MICROWAVE TURES (INCLUDES TWTS ETC)	038
CONFORMAL OR ADAPTIVE ARRAY ANTENNAE	039
HIGH DYNAMIC RANGE RECEIVERS	040
SOLID STATE TRANSMITTERS/FREQUENCY AMPLIFIERS	041
SPECIALIZED SPACE ANTENNAS	042
WIDE-RAND LOW NOISE RECEIVERS	043
ADVANCED FORGING TECHNOLOGY	044
HIGH DENSITY MATERIALS	045
HIGH DENSITY OFTICAL RECORDING	046
PLASMA DISPLAYS	047
FLUIDICS	048
MILLIMETER WAVE TURES	049
MILLIMETER WAVF TURES INERTIAL NAV. SYSTEMS/INERTIAL MEASUREMENT CERAMIC TECHNOLOGY	050
	051
PROPELLANT MODELS	052
ELECTRONIC SCORING/MACHINERY	053
VERY LARGE SCALE INTEGRATED CIRCUITS	054
VERY HIGH SPEED INTEGRATED CIRCUITS	055

## Table 3-1 LIST OF TECHNOLOGIES

WARHEAD MODELS	05A
WAVE SHAPING	057
HIGH ENERGY LASER TECHNOLOGY	058
LASER INTERFEROMETRY	059
LASER HOLOGRAPHY	060
PLASMA SPRAY TECHNOLOGY	061
HIGH PERFORMANCE A/D CONVERTERS	062
HIGH PERFORMANCE CATHODE RAY TURES	063
MICRO DENSITOMETERS	964
ULTRA STABLE OSCILLATORS	065
ELECTRON ACCELLERATORS	999
FLASH RADIOGRAPHY	067
GRAVITY GRADIOMETERS	968
HIGH PRECISION CLOCKS/FREQUENCY STDS (SUBSET OF 65)	069
ULTRA HIGH-SPEED PHOTOGRAPHY	070
VERY WIDE-BAND RECORDERS	071
COMPUTER-AIDED DESIGN	072
COMPUTER DISC SYSTEMS	073
LARGE MEMORY DESIGN	074
MEMORY TECHNOLOGIES (RURBLE, HI-DENSITY CORES, ETC)	075
OPTICAL COMPUTING (FORM OF SIGNAL PROCESSING)	076
COMPUTERIZED IMAGE INTERPRETATION	077
PENETRATION AIDS TECHNOLOGY	078
STELLAR NAVIGATION TECHNOLOGY	079
SOLID PROFELLANTS	080
LIQUID PROFELLANTS	081
SLURRIED PROFELLANTS	087
I/O TECHNOLOGY (SOFTWARE AND HARDWARE)	083
COMPUTER/PROCESSOR/SYSTEM ARCHITECTURE	084
HIGH SPEED ELECTRONICS (OSCILLOSCOPES,COUNTERS)	085
PHOTO MULTIPLIEF TURES	086
FIN TECHNOLOGY	087
HIGH POWER OFTICS	085
VIBRATION TESTING (EQUIPMENT TECHNIQUES)	089
DEEP, LARGE DIAMETER HOLE DRILLING	090
VAPOR DEPOSITION	091
ISOTOPE SFFARATION	092
ORALLOY PRODUCTION	093
PLUTONIUM EXTRACTION	094
TRITIUM RECOVERY	095
SEISMIC TECHNOLOGY (WPN EFFECTS, TEST SEC. DEVICES)	096
IGNITION PHENOMENA	097
OFTICAL FIBER CABLES, ASSEMBLIES, GUIDES	078
EXTERIOR/INTERIOR BALLISTICS (MODELS)	099
RADIO-CHEMICAL TECHNIQUES	100
SPECIAL NUCLEAR MATERIALS	101
WEAFONIZATION (NUCLEAR)	102
WEIN ONLESS LON THOUSENING	102

Table 3-1 (Con't.)
LIST OF TECHNOLOGIES

"know-how" (deep, large diameter hole drilling) with advanced technology (solid state microwave technology). In this project, the list of technologies was taken largely as a given, and most of the effort was focused on the analysis. This consisted mainly of developing the structures and eliciting the weights and scores to be used as input data. If the project were to be repeated or extended, effort would be focused on defining the technologies.

#### 3.3 The ICBM Results

With the above-noted qualifications, the results obtained from the analysis provide a useful way of examining the potential value of various technologies to a foreign country. There are four priority listings in the form of computer runs to be reviewed: one from the ICBM analysis (Table 3-2), one from the Tactical Air analysis (Table 3-3), one from the Theater Nuclear analysis (Table 3-4), and one from the ICBM and Theater Nuclear combined (Table 3-5).

The numerical values were normalized so that each column sums to 100. Referring to the ICBM results (Table 3-2), one implication is that if all of the listed technologies of potential value to the Soviet ICBM development program were equal to 100, an average technology would be worth approximately 02 (100 ÷ 46 technologies). By comparison, "metal matrix composites"--highest on the list with a score of 16-is about 8 times more valuable than an "average" technology such as "high temperature coatings for super alloys" with a score of 1.91. The lowest on the list is "amorphous metals" with a score of .03. This low score may be misleading and, instead of indicating that the technology would be of little value to an adversary nation, reflects the fact that almost no one that we spoke with knew how amorphous metals are used. This emphasized the need, stated earlier, for further refinement and definition of the list of technologies.

AMORPHOROUS METALS	0.03
COMPUTER/PROCESSOR/SYSTEM ARCHITECTURE	0.06
VIBRATION TESTING (EQUIPMENT TECHNIQUES)	0.06
SEGMENTED-MAGNET MOTORS AND GENERATORS	0.07
ELECTROLYTE BATTERY DEVELOPMENT	0.13
POLYMERS (INC PIEZO-ELECTRIC, PYROELECTRIC, ETC)	0.17
COMPUTER DISC SYSTEMS	0.23
ULTRAHIGH CARBON STEELS (SUPERPLASTICITY)	0.25
POLYAMIDES (INCLUDING KEVLAR)	0.27
BEARINGLESS ROTORS	0.29
OPTICAL FIBER CABLES, ASSEMBLIES, GUIDES	0.49
ULTRA HIGH-SPEED PHOTOGRAPHY	0.65
DEEF DRAWN, THIN WALLED METAL PARTS DESIGN	0.81
ULTRA STABLE OSCILLATORS	0.82
NUMERICAL CONTROL OF MACHINE TOOLS	0.85
LASER GYRO TECHNOLOGY (A SUBSET OF \$50)	0.87
MICROWAVE TUBES (INCLUDES TWTS ETC)	0.88
HIGH ENERGY STORAGE (ACCUMULATORS)	0.90
ELECTRON ACCELLERATORS	0.91
HIGH POWER OPTICS	0.91
CORROSION/EROSION RESISTANT COATINGS	1.11
VERY WIDE-BAND RECORDERS	1.15
AMORPHOROUS METALS  COMPUTER/PROCESSOR/SYSTEM ARCHITECTURE  VIBRATION TESTING (EQUIPMENT TECHNIQUES)  SEGMENTED-MAGNET MOTORS AND GENERATORS  ELECTROLYTE BATTERY DEVELOPMENT  POLYMERS (INC PIEZO-ELECTRIC, PYROELECTRIC, ETC)  COMPUTER DISC SYSTEMS  ULTRAHIGH CARBON STEELS (SUPERPLASTICITY)  POLYAMIDES (INCLUDING KEVLAR)  BEARINGLESS ROTORS  OFTICAL FIBER CABLES, ASSEMBLIES, GUIDES  ULTRA HIGH-SPEED PHOTOGRAPHY  DEEP DRAWN, THIN WALLED METAL PARTS DESIGN  ULTRA STABLE OSCILLATORS  NUMERICAL CONTROL OF MACHINE TOOLS  LASER GYRO TECHNOLOGY (A SUBSET OF \$50)  MICROWAVE TUBES (INCLUDES TWTS ETC)  HIGH ENERGY STORAGE (ACCUMULATORS)  ELECTRON ACCELLERATORS  HIGH POWER OFTICS  CORROSION/EROSION RESISTANT COATINGS  VERY WIDE-BAND RECORDERS  SEISMIC TECHNOLOGY (WPN EFFECTS, TEST SEC. DEVICES)  SOLID STATE MICROWAVE TECHNOLOGY	1.18
SOLID STATE MICROWAVE TECHNOLOGY	1.39
GRAVITY GRADIOMETERS	1.61
BONDING AGENTS AND BINDERS	1.64
BONDING AGENTS AND BINDERS ADVANCED AIRFOIL AND THREE-DIMENSIONAL WING DESIGN	1.64
BORON FIBERS (A SUBSET OF #3)	1.70
COMPUTER-AIDED DESIGN	1.85
HIGH-TEMP COATINGS FOR SUPER ALLOYS/TITANIUM	1.91
SOLID STATE ELECTRO-OPTICAL DETECTORS	2.55
PLATFORM STABILIZATION	2.60
SOLID PROPELLANTS	2.86
BORON FIBERS (A SUBSET OF \$3) COMPUTER-AIDED DESIGN HIGH-TEMP COATINGS FOR SUPER ALLOYS/TITANIUM SOLID STATE ELECTRO-OPTICAL DETECTORS PLATFORM STABILIZATION SOLID PROPELLANTS VERY LARGE SCALE INTEGRATED CIRCUITS HIGH VACUUM PROCESSES	2.95
HIGH VACUUM PROCESSES	3.27
COMPOSITE TECHNOLOGIES (WINDINGS, BONDINGS, ETC.)	3.45
HIGH VACUUM PROCESSES COMPOSITE TECHNOLOGIES (WINDINGS, BONDINGS, ETC.) MEMORY TECHNOLOGIES (BUBBLE, HI-DENSITY CORES, ETC) HIGH PERFORMANCE A/D CONVERTERS	3.48
HIGH PERFORMANCE A/D CONVERTERS	3.90
INSPECTION OF ADVANCED COMPOSITE STRUCTURES	<b>3.9</b> 8
PENETRATION AIDS TECHNOLOGY	4.09
SOLID STATE TRANSMITTERS/FREQUENCY AMPLIFIERS	4.24
HIGH PERFORMANCE A/D CONVERTERS INSPECTION OF ADVANCED COMPOSITE STRUCTURES PENETRATION AIDS TECHNOLOGY SOLID STATE TRANSMITTERS/FREQUENCY AMPLIFIERS NON-DESTRUCTIVE EVALUATION TECHNOLOGY PLASMA SPRAY TECHNOLOGY INERTIAL NAV. SYSTEMS/INERTIAL MEASUREMENT PROPULSION CONTROLS, MATERIALS AND SYSTEMS METAL MATRIX COMPOSITES (CARBON-CARBON,ORGANIC)	5.93
PLASMA SPRAY TECHNOLOGY	6.11
INERTIAL NAV. SYSTEMS/INERTIAL MEASUREMENT	6.25
PROPULSION CONTROLS, MATERIALS AND SYSTEMS	6.40
METAL MATRIX COMPOSITES (CARBON-CARBON,ORGANIC)	16.12

Table 3-2
ICBM RESULTS

	୦.୧୫
HIGH ENERGY STORAGE (AUCUMULATORS)	0.12
OPTICAL FIBER CABLES, ASSEMBLIES, GUIDES	0.16
HIGH ENERGY STORAGE (ACCUMULATORS)  OPTICAL FIBER CABLES, ASSEMBLIES, GUIDES ADVANCED FORGING TECHNOLOGY FLUIDICS  FLECTROLYTE BATTERY DEVELOPMENT BEARINGLESS ROTORS WAVE SHAPING MILLIMETER WAVE TUBES PLASMA DISPLAYS HIGH PERFORMANCE CATHODE RAY TUBES HIGH DENSITY OPTICAL RECORDING HIGH DENSITY MATERIALS	0.27
FLUIDICS	0.27
BONDING AGENTS AND BINDERS	0.34
ELECTROLYTE BATTERT DEVELOPMENT	0.41
BEARINGLESS RUTURS	0.47
WAVE SHAPING	0.46
MILLIMETER WAVE TURES	0.45
PLASMA DISPLATA	0.45
HIGH PERFURMANCE CHIMODE NATIONES	0.51
HIGH DENSITY OFFICE ACCOUNTS	0.57
HIGH DENSITY MATERIALS	0.52
FLECTRONIC SCORING/MACHINERY MEMORY TECHNOLOGIES (BUBBLE, HI-DENSITY CORES, ETC)	
MEMORY TECHNOLOGIES (BODBLE, HI-DERSITY OWNERS) BY	0.65
SLURRIED PROPELLANTS CONTROL CONFIGURED VEHICLE (FLY-BY-WIRE)	0.74
SEGMENTED-MAGNET MOTORS AND GENERATORS	0.74
SEGMENTED-WORKE MITTINGS HAT GEATTMATORS	0.89
LIQUID PROPELLANTS	1.03
HOT ISOSTATIC PROCESSING ADVANCED AIRFOIL AND THREE-DIMENSIONAL WING DESIGN	1.15
POWDER METALLURGY (E.G., HIGH COOLING PATE)	1.17
POWDER METPILIBRIT CERTIFIES	1.23
HIGH DYNAMIC RANGE RECEIVERS	1.26
MICROWAVE TURES (INCLUDES TWIS ETC)	1.25
ULTRA STABLE OSCILLATORS CENTRIFUGAL COMPRESSORS FOR SMALL TURRING ENGINES	1.44
WIDE-BAND LOW NOISE RECEIVERS	1.49
MIDE-BOND I'M WAINE KUCETAERS	1.61
HIGH PERFORMANCE WELDING	1.65
COSKUZIONA EROZIONA KENTZIANA COMPLAGA	1.78
SULTO PROPELLANTS	2,04
INFRITAL NAV. SISTEMS/INCRITED TO MARKET THE	2,30
MON-DESTANDATED METAL DARTS DESTON	2.34
DEEP DRAWN, THIN WALLED METAL PARTS DESTON	2.34
HIGH-TEMP CURITION FOR SUPER MELOUS/ TIBERS	2.43
SDLID STATE TRANSMITTERSYFREGULAGI HOLEST TOWN	2.46
CERAMIC TECHNOLOGY	2.64
CONFORMAL OR ADMPTIVE MARKET HATERTALE BLADES)	2.74
AUCTION CASTING (AIR PROPER TOWNS)	2.84
EXTERIOR/INTERIOR BALLISTICS CHOI/ELS/	2.97
COMPUTER-AIDED DESIGN	3.16
NUMERICAL CONTROL OF MATERIAL C AND CYCLEMS	3.24
PROPULSION CONTROLS, MATERIALS AND SISTEMS	3.31
DENTRIFUGAL COMPRESSORS FOR SHALL TOWNS  WIDE-BAND LOW NOISE RECEIVERS  HIGH PERFORMANCE WELDING  CORROSION/EROSION RESISTANT COATINGS  SOLID PROFELLANTS  INERTIAL NAV. SYSTEMS/INERTIAL MEASUREMENT NON-DESTRUCTIVE EVALUATION TECHNOLOGY  DEEF DRAWN, THIN WALLED METAL PARTS DESIGN HIGH-TEMP COATINGS FOR SUPER ALLOYS/TITANIUM SOLID STATE TRANSMITTERS/FREQUENCY AMPLIFTERS  CERAMIC TECHNOLOGY  CONFORMAL OR ADAPTIVE ARRAY ANTENNAC  VACUUM CASTING (AIR COOLED TURBINE BLADES)  EXTERIOR/INTERIOR BALLISTICS (MODELS)  COMPUTER-AIDED DESIGN NUMERICAL CONTROLS, MATERIALS AND SYSTEMS  SPECIALIZED SPACE ANTENNAS  VERY LARGE SCALE INTEGRATED CIRCUITS  SOLID STATE ELECTRO-OPTICAL DETECTORS  ULTRAHIGH CARRON STEELS (SUPERPLASTICITY)  SOLID STATE MICROWAVE TECHNOLOGY  COMPOSITE TECHNOLOGIES (WINDINGS, BONDINGS, FTC.)	4.53
VERY LARGE SCALE INTEGRATED CIRCUITS	5.01
SOLID STATE ELECTRO-OFFICER DETECTORS	5.53
ULTRAHIGH CARRON STEELS (SUPERFLASTICITY)	5.61
SOLID STATE MICROWAVE TECHNOLOGY	6.72
	7.04
VERY HIGH SPEED INTEGRATED CIRCUITS	8.10
HIGH PERFORMANCE A/D CONVERTERS	0.10

## Table 3-3 TACTICAL AIR WARFARE RESULTS

TENTANTE (MOLECULAR COMPACTITION	^ ^ -
ISOTOPIC/MOLECULAR COMPOSITION	0.02
MICRO DENSITOHETERS	0.02
LASER HOLOGRAPHY	0.06
HIGH ENERGY STORAGE (ACCUMULATORS)	0.07
COMPUTER DISC SYSTEMS	0.08
ELECTRON ACCELLERATORS	0.09
FLASH RADIOGRAPHY	0.09
PIN TECHNOLOGY	0.09
ISOTOPIC/MOLECULAR COMPOSITION MICRO DENSITGHETERS LASER MOLOGRAPHY HIGH ENERGY STORAGE (ACCUMULATORS) COMPUTER DISC SYSTEMS ELECTRON ACCELLERATORS FLASH RADIOGRAPHY PIN TECHNOLOGY IMAGE ENHANCEMENT TECHNIQUES COMPUTERIZED IMAGE INTERPRETATION DEEP, LARGE DIAMETER HOLE DRILLING ADVANCED FORGING TECHNOLOGY HIGH VACUUM PROCESSES PLASMA SPRAY TECHNOLOGY VAPOR DEPOSITION	0.10
COMPUTERIZED IMAGE INTERPRETATION	0.10
DEEP, LARGE DIAMETER HOLE DRILLING	0.11
ADVANCED FORGING TECHNOLOGY	0.14
HIGH VACUUM PROCESSES	0.16
PLASHA SPRAY TECHNOLOGY	0.16
VAPOR DEPOSITION	0.16
RADIATION DETECTION MATERIALS	0.10
FLUIDICS	0.20
SEISMIC TECHNOLOGY (WEN EFFECTS, TEST SEC. DEVICES)	
VERY WIDE-BAND RECORDERS	0.24
PHOTO MULTIPLIER TURES	0.24
ULTRA HIGH-SPEED PHOTOGRAPHY	0.28
PHOTO MULTIPLIER TURES  ULTRA HIGH-SPEED PHOTOGRAPHY FLECTROLYTE BATTERY DEVELOPMENT AMORPHOROUS METALS RONDING AGENTS AND RINDERS COMPUTER/PROCESSOR/SYSTEM ARCHITECTURE BEARINGLESS ROTORS WAVE SHAPING LASER INTERFEROMETRY MILLIMETER WAVE TURES PLASMA DISPLAYS HIGH PERFORMANCE CATHODE RAY TURES 1/O TECHNOLOGY (SOFTWARE AND HARDWARE) HIGH DENSITY OFTICAL RECORDING HIGH DENSITY MATERIALS FLECTRONIC SCORING/MACHINERY SLURRIED PROFELLANTS SEGMENTED-MAGNET MOTORS AND GENERATORS CONTROL CONFIGURED VEHICLE (FLY-RY-WIRE) RADJO-CHEMICAL TECHNIQUES	0.31
AMORPHOROUS METALS	0.32
BONDING AGENTS AND BINDERS	0.32
COMPUTER/PROCESSOR/SYSTEM ARCHITECTUFE	0.36
BEARINGLESS FOTORS	0.37
WAVE SHAPING	0.30
LASER INTEREFROMETRY	0.38
MILLIMETED MANE THECC	0.42
DIACMA RICOLAVO	3.44
TEMBUM PINTEMIA	0.44
TIO TECHNOLOGY (COSTILADE AND MARRIADE)	0.45
I/O (ECHNOLOGI (SUF)WHNE HRV HHNDWHNE:	
HIGH DENSITY OFFICAL RECUEDING	0.46
HIGH DENSITY MATERIALS	0.47
ELECTRONIC SCURING/MACHINERY	0.47
SLURRIED PROFELLANTS	0.62
SEGMENTED-MAGNET MOTORS AND GENERATORS	0.66
CONTROL CONFIGURED VEHICLE (FLY-RY-WIRE)	0.67
RADIO-CHEMICAL TECHNIQUES	0.68
BILLIAE MOCLEAN MATERIALS	83.0
OPTICAL FIRER CARLES, ASSEMBLIES, GUIDES	0.72
LIQUID PROFELLANTS	0.80
MEMORY TECHNOLOGIES (BURBLE, HI-DENSITY CORES, FIC) ADVANCED AIRFOIL AND THREE-DIMENSIONAL WING DESIGN	1.02
ADVANCED AIRFOIL AND THREE-DIMENSIONAL WING DESIGN	1.04
HIGH DYNAMIC RANGE RECEIVERS	1.11
HOT ISOSTATIC PROCESSING	1.17
POWDER METALLURGY (E.G., HIGH COOLING MATE)	1.22
MICROWAVE TUBES (INCLUDES TWTS ETC)	1.23
ULTRA STABLE OSCILLATORS	1.25
CENTRIFUGAL COMPRESSORS FOR SMALL TURRINE ENGINES	1.30
WIDE-BAND LOW NOISE RECEIVERS	1.34
CORROSION/FROSION RESISTANT COATINGS	1.48
	1.53
HIGH PERFORMANCE WELDING	
WEAFONIZATION (NUCLEAR)	1.58
SOLID PROPELLANTS INERTIAL NAV. SYSTEMS/INERTIAL MEASUREMENT	1.60
INEKTIAL NAV. 515 LEMS/INEKTIAL MEASUMEMENT	1.84

## Table 3-4 THEATER NUCLEAR RESULTS

NON-DESTRUCTIVE EVALUATION TECHNOLOGY	2.11
DEEP DRAWN, THIN WALLED METAL PARTS DESIGN	2.12
HIGH-TEMP COATINGS FOR SUPER ALLOYS/TITANIUM	2.12
SOLID STATE TRANSMITTERS/FREQUENCY AMPLIFTERS	2.19
CERAMIC TECHNOLOGY	2.23
CONFORMAL OR ADAPTIVE ARRAY ANTENNAE	2.38
VACUUM CASTING (AIR COOLED THERINE BLADES)	2.47
EXTERIOR/INTERIOR BALLISTICS (MODELS)	2.56
COMPUTER-AIDED DESIGN	2.69
PROPULSION CONTROLS. MATERIALS AND SYSTEMS	2.92
NUMERICAL CONTROL OF MACHINE TOOLS	2.95
SPECIALIZED SPACE ANTENNAS	2.98
VERY LARGE SCALE INTEGRATED CIRCUITS	4.36
SOLID STATE ELECTRO-OFTICAL DETECTORS	4.51
ULTRAHIGH CARRON STEELS (SUPERFLASTICITY)	4.98
SOLID STATE MICROWAVE TECHNOLOGY	5.06
COMPOSITE TECHNOLOGIES (WINDINGS, BONDINGS, ETC.)	
VERY HIGH SPEED INTEGRATED CIRCUITS	6.73
HIGH PERFORMANCE A/D CONVERTERS	7.81

Table 3-4 (Con't.)
THEATER NUCLEAR RESULTS

FLECTROSTREAM HOLE DRILLING	0.00
VAPOR DEPOSITION	0.00
OPTICAL THIN FILM MATERIALS	0.00
PROPELLANT MODELS	0,00
WARHEAD MODELS	0.00
HIGH ENERGY LASER TECHNOLOGY	0.00
HIGH PRECISION CLOCKS/FREQUENCY STDS (SUBSET OF 65)	
LARGE MEMORY DESIGN	0.00
DETICAL COMPUTING (FORM OF SIGNAL PROCESSING)	0.00
STELLAR NAVIGATION TECHNOLOGY	0.00
HIGH SPEED FLECTRONICS (OSCILLOSCOPES,COUNTERS)	0.00
ISOTOPE SEPARATION	0.00
ORALLOY PRODUCTION	0.00
PLUTONIUM EXTRACTION	0.00
TRITIUM RECOVERY	0.00
IGNITION PHENOMENA	0.00
ISOTOPIC/MOLECULAR COMPOSITION	0.01
MICRO DENSITOMETERS	0.01
LASER HOLOGRAPHY	0.03
LHSEN HULUGARFHY VIBRATION TESTING (EQUIFMENT TFCHNIQUES) IMAGE FNHANCEMENI TECHNIQUES	0.03
	0.05
FLASH RADIOGRAPH)	0.05
COMPUTERIZED IMAGE INTERPRETATION	0.05
PIN TECHNOLOGY	0.05
DEEP, LARGE DIAMETER HOLE DRILLING	0.06
ADVANCED FORGING TECHNOLOGY	0.07
VAPOR DECOSITION	0.08
POLYMERS (INC PJEZO-ELECTRIC, PYROELECTRIC, ETC)	0.09
RADIATION DETECTION MATERIALS	0.10
FLUTDICS	0.10
PHOTO MULTIPLIER TUBES	0.12
POLYAMIDES (INCLUDING KEVLAR)	0.14
COMPUTER DISC SYSTEMS	0.16
AMORPHOROUS METALS	0.18
MAVE SHAFING	0.19
LASER INTERFEROMETRY	0.19
MILLIMETER WAVE TUBES	0.21
COMPUTER/PROCESSOR/SYSTEM ARCHITECTURE	0.21
COMPUTER/PROCESSOR/SYSTEM ARCHITECTURE ELECTROLYTE RATTERY DEVELOPMENT FLASMA DISPLAYS	0.22
CHANGE DIVIDENTS	0.22
HIGH PERFORMANCE CATHODE RAY TURES	0.22
HIGH DENSITY OFTICAL RECORDING	0.23
I/O TECHNOLOGY (SOFTWARE AND HARDWARE)	0.23
HIGH DENSITY MATERIALS	0.24
ELECTRONIC SCORING/MACHINERY	0.24
RADIO-CHEMICAL TECHNIQUES	0.32
SPECIAL NUCLEAR MATERIALS	0.32
BEARINGLESS ROTORS CONTROL CONFIGURED VEHICLE (FLY-RY-WIRE) SEGMENTED-MAGNET MOTORS AND GENERATORS LIQUID PROPELLANTS	0.33
CONTROL CONFIGURED VEHICLE (FLY-RY-WIRE)	0.34
SEGMENTED-MAGNET MOTORS AND GENERATORS	0.37
	0.40
LASER GYRO TECHNOLOGY (A SUBSET OF \$50)	0.44
ULTRA HIGH-SPEED PHOTOGRAPHY	0.47
HIGH POWER OFTICS	0.47
HIGH ENERGY STORAGE (ACCUMULATORS)	0.49

## Table 3-5 COMBINED RESULTS

ÉLECTRON ACCELLERATORS	0.50
HOT ISOSTATIC PROCESSING	0.59
NOT 12031HILE FRUCESZING POWDER METALLURGY (E.G., HIGH CODLING FATF) OPTICAL FIBER CARLES ASSEMBLIES CUINCS	0.61
OFTICAL FIBER CABLES, ASSEMBLIES, GUIDES	0.61
CENTRIFUGAL COMPRESSORS FOR SMALL TURBINE ENGINES	0.65
WIDE-BAND LOW NOISE RECEIVERS	0.67
SEISHIC TECHNOLOGY (WPN EFFECTS, TEST SEC. DEVICES)	0.69
VERY WIDE-BAND RECORDERS	0.70
HIGH PERFORMANCE WELDING	0.77
WEAPONIZATION (NUCLEAR)	0.79
GRAVITY GRADIOMETERS	0.81
SLURRIED PROFELLANTS	0.83
BORON FIBERS (A SUBSET OF #3)	0.85
BONDING AGENTS AND BINDERS	0.98
ULTRA STABLE OSCILLATORS	1.04
MICROWAVE TUBES (INCLUDES TWIS EIG)	1.06
CERAMIC TECHNOLOGY	1.11
HIGH PERFORMANCE WELDING WEAPONIZATION (NUCLEAR) GRAVITY GRADIOMETERS SCURRIED PROPELLANTS BORON FIBERS (A SUBSET OF \$3) BONDING AGENTS AND BINDERS ULTRA STABLE OSCILLATORS MICROWAVE TURES (INCLUDES TWIS EIC) CERAMIC TECHNOLOGY CONFORMAL OR ADAPTIVE ARRAY ANTENNAE VACUUM CASTING (AIF COULED TURNINF BLADES) EXTERIOR/INTERIOR BALLISTICS (MODELS) CORROSION/FROSION FESTSTANT COUTINGS	1.19
VACUUM CASTING (AIR CONLED TURRINE BLADES)	1.24
EXTERIOR/INTERIOR BALLISTICS (MODELS)	1.28
CORROSION/FROSION FESISTANT COATINGS	1.30
FLAIFURM SIARILIZATIUM	1.30
ADVANCED AIFFOIL AND THEFF-DIMENSIONAL WING DESIGN	1.34
DEEP DRAWN, THIN WALLED METAL PARTS DESIGN	1.47
SPECIALIZED SPACE ANTENNAS HIGH DYNAMIC RANGE RECEIVERS HIGH VACUUM PROCESSES NUMFRICAL CONTROL OF MACHINE TOOLS INSPECTION OF ADVANCED COMPOSITE STRUCTURES HIGH-TEMP COATINGS FOR SUPER ALLOYS/TITANIUM PENFTRATION AIDS TECHNOLOGY	1.49
HIGH DYNAMIC RANGE RECEIVERS	1.60
HIGH VACUUM PROCESSER	1.72
NUMERICAL CONTROL OF MACHINE TOOLS	1.90
INSPECTION OF ADVANCED COMPOSITE STRUCTURES	1.99
HIGH-TEMP COATINGS FOR SUPER ALLOYS/TITANIUM	2.02
	2.05
SOLID PROPELLANTS	2.23
MEMORY TECHNOLOGIES (BURBLE, HI-DENSITY CORES, ETC)	
COMPUTER-AIDED DESIGN	2.27
ULTRAHIGH CARBON STEELS (SUPERPLASTIFITY)	2.62
FLASMA SFRAY TECHNULOGY	3.14
SOLID STATE TRANSMITTERS/FREQUENCY AMPLIFIERS	3.22
SOLID STATE MICROWAVE TECHNOLOGY	3.23
VERY HIGH SPEED INTEGRATED CIRCUITS SOLID STATE ELECTRO-OFTICAL DETECTORS VERY LARGE SCALE INTEGRATED CIRCUITS NON-DESTRUCTIVE EVALUATION TECHNOLOGY	3.37
SOLID STATE ELECTRO-OFTICAL DETECTORS	3.53
VERY LARGE SCALE INTEGRATED CIRCUITS ,	3.66
NON-DESTRUCTIVE EVALUATION TECHNOLOGY INERTIAL NAV. SYSTEMS/INERTIAL MEASUREMENT	4.02
INERTIAL NAV. SYSTEMS/INERTIAL MEASUREMENT	4.05
PROPOSATON LONGROUS. MATERIALS AND SYSTEMS	4.66
COMPOSITE TECHNOLOGIES (WINDINGS, BONDINGS, FTC.)	4.75
HIGH PERFORMANCE A/D CONVERTERS	5.86
METAL MATRIX COMPOSITES (CARBON-CARBON,ORGANIC)	8.06

Table 3-5 (Con't.)
COMBINED RESULTS

Each technology should be clearly defined in terms of when it will become available (if it is not already being applied to the production of weapon systems), precisely what it is, and where and how it would be applied.

#### 3.4 The Tactical Air Warfare Results

The process of obtaining assessments for the Tactical Air and the Theater Nuclear models was different from that for the ICBM model. First, the weights were not elicited from an intelligence specialist in an attempt to capture areas of Soviet weaknesses. Based upon our experience with the ICBM model and our discussions with missile, airframe, engines, and nuclear weapons personnel, it was concluded that, in general, those technologies considered important to U.S. weapons programs should also be considered important to Soviet weapons programs. In other words, it was concluded that the difference in "red and blue" weights would be insignificant. As a consequence, the weights in these two models reflect the views of the U.S. research and development community rather than the intelligence community.

The second change made after completion of the ICBM analysis was to prune the hierarchical structure used in the computer versions of the Tactical Air and Theater Nuclear models. For example, the structure for Tactical Air as shown in Figure 2-2 had 72 end nodes against which each of the 102 technologies had to be scored. The "pruned" version (Appendix B printout) has 22. This reduced the required number of assessments by one-third and was much less burdensome for the research and development personnel involved. To maintain the quality of their inputs, the technical specialists were asked to keep the 72-node models before them (and in mind) to ensure that they were considering all of the sub-elements of the problem when they made the higher order assessments required by the 22-node model.

Fifty technologies from the list of 102 were considered applicable to the Tactical Air Warfare problem. As in the ICBM case, an average technology would receive a value of 02. One such average technology is "inertial navigation systems/inertial measurement units." The highest on the list is "high performance A/D converters" valued at slightly more than 08. Lowest on the list was "high energy storage," "optical fiber cables, assemblies, guides," and "advanced forging technology." As in the ICBM case, these received low values partly because so little was known about them and their potential application to the development or improvement of weapons systems.

#### 3.5 Theater Nuclear Results

The structure for the Theater Nuclear problem is identical to the Tactical Air structure except for the addition of those nodes pertaining to nuclear weapons. These nodes (Figure 2-3) are all under node number 1.3, titled "Weapons." Not included in the model are land- and sea-based theater delivery systems. If it is decided to continue this evaluation using this type of analysis, the additional platforms should be added.

Seventy-five technologies were considered applicable to the Theater Nuclear problem. A technology that received an average score was "wide-band, low noise receivers" at 1.34; "high performance A/D converters" received the highest score. The complete list of 102 technologies included "isotope separation," "oralloy production," "plutonium extraction," "tritium recovery," and "warhead models." Due to the fact that these nuclear-weapons-related technologies were not evaluated as individual technologies but were included in "weaponization" (1.58) and "special nuclear materials" (.68), they received a zero score (see Table 3-5).

#### 3.6 Combined Results

When the results of the ICBM and the Theater Nuclear models are combined, it is possible to examine the relative importance of different technologies to the development of land-based intercontinental ballistic missiles, tactical aircraft systems, and nuclear weapons. Of the 102 technologies, 16 received a zero score. The first technology on the list (Table 3-5), "electrostream hole drilling" was not well understood by the personnel providing the assessments. This also applies to others on the list such as "vapor deposition" and "optical thin film materials." The other technologies that received a zero score were either duplicated by another one on the list (e.g., "large memory design" was duplicated by "memory technologies" and "computer disc systems" was duplicated by "I/O technology") or were found to be a subset of another one on the list. Much of the overlap was not apparent until the analysis was well underway, and this underscores the importance of developing a clearly defined set of technologies of equal specificity.

Based upon our discussion with the technical personnel who provided the quantitative input for the three models, along with the underlying rationale justifying their assessments, there is nothing counter-intuitive concerning the high scores computed for the most-critical technologies displayed in Table 3-5. Except for the distortions caused by duplication, differences in grain size, and lack of definition, one should find it much easier to justify export restrictions for those technologies receiving a high score than for those receiving a low score. In fact, the printout (Appendices A-C) provides the organization and traceability needed by the decision makers; they can see exactly where and to what extent the technology would be of value.

Following is an example of how the computer models should be used by the Mission Technology Correlation Task Force (MTCTF). Suppose that an opinion is sought concerning the feasibility of placing export restrictions on one of the technologies. If the technology was "higher performance A/D converters," it could be noted that it was one of the most critical technologies, based upon a wide range of 102 different technologies. It could then be shown (by referring to Appendices A, B, and C, column 062) that this particular technology, if made available to a foreign nation, could be of value in the following areas of weapons development:

ICBMs - guidance and control systems; and Tactical Air - radar, passive electronic and electro-optic guidance systems, and airborne early warning, navigation, surveillance, and communications systems.

#### 4.0 CONCLUSIONS AND RECOMMENDATIONS

This analysis has demonstrated the feasibility and value of using multi-attribute utility analysis for evaluating the potential impact of technology in three mission areas. The hierarchical structure organizes and aggregates the multiple impacts of a large number of technologies. analysis is easy to understand and can be modified as necessary to perform sensitivity analysis in order to gain additional insights. In addition, an audit trail is provided which links the overall impact of each technology to its many impacts within each mission area. The result of the analysis is a ranking of technologies in order of their potential for improving Soviet military capabilities ranking of technologies resulting from the analysis provides a valuable input into decisions on export restrictions. in any analysis of this type, judgments must be applied to the results before reaching a final conclusion.

As described in the report, only three mission areas were addressed, and selected additional missions such as sea-based strategic attack should be included. In addition, the list of technologies includes some duplication, large differences in grain size, and lack of definition. Given a well-defined list of technologies, the overall quality of the analysis could be significantly improved. The group of experts who assigned the values to the technologies did not develop the list of technologies and in some cases were asked to evaluate technologies about which they did not have expert knowledge. In general, these unfamiliar technologies ranked very low. Despite these limitations, the ranking of technologies is a good initial cut and can be used to the extent that technologies ranking high should not be exported and technologies ranking low should be carefully evaluated prior to an export decision.

If this approach is to be extended to other mission areas or lists of technologies, the lessons from this analysis should be applied. First, more effort should be allocated to developing and defining the list of technologies. The current list used for this analysis was developed for evaluating technologies both for future U.S. research and development and for potential exportation to the Soviet Union. Separate lists of technologies should be developed for these two evaluations. Technologies for U.S. research and development tend to be at a conceptual or testing stage whereas technologies to be exported are more fully developed and would normally consist of a finished product or processing/manufacturing technique, or the complete transfer of a combination of technology, processing/manufacturing technique, and product. In addition, evaluation of technologies for exportation must also consider availability from non-Soviet countries and the possibility of back-engineering the technology from finished products.

A useful approach for developing these lists of technologies would be to use a hierarchical structure. Such an
organized approach would minimize duplication, encourage
completeness, and reduce large differences in grain size.
In addition, the impact of aggregate technologies could be
calculated by summing the impacts of the component technologies.

Another recommendation resulting from this analysis relates to the elicitation of the value judgments. Ideally, U.S. research and engineering specialists would meet with intelligence experts to discuss both the capability and potential of each technology and the value of this capability to the Soviets. Assessment of the impact of a technology requires knowledge of both current Soviet capabilities and potentially increased Soviet capabilities given access to the U.S. technology. If these two groups of experts cannot

confer together, then the technologies should be evaluated by both groups and significant differences resolved either by meeting for a short period or by exchanging rationale for each group's judgments.

A major criticism of the approach is that it can be very time-consuming. The initial Tactical Air structure had 72 end nodes against which each of 102 technologies were evaluated. The large number of nodes resulted from decomposing each mission area into very specific subfactors which the experts considered important. These specific subfactors are important for ensuring that all aspects of the problem are included in the evaluation and for making the link between mission areas and technologies more visible. However, during this analysis, it was demonstrated that experts can provide the necessary judgments by simply reviewing a large, detailed structure and then evaluating the technologies on a smaller number of more aggregate factors. approach (which was used in the Theater Nuclear case) reduced the burden on the personnel providing the assessments but still provided the audit trail from the technologies to specific subfactors in each mission area.

APPENDIX A

ICBM STRUCTURE AND DATA

NODE

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SYSTEM SCORES

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	.00	.00	.00	.06	.00	.00	.00	14.67
TOTAL	• • • • • • • • • • • • • • • • • • • •	• '	• • •					
1.0 - U.RSD ICRM - REFACTOR WT 1 SECURIT: *( 59) D: VULNBARITY *( 41) 3) RELD CERLY *( 0) TOTAL	014 00. 00. 00. 00.	015 .00 .00 .00	016 .00 .00 .00	017 .00 .00 .00	018 .00 .00 .00	020 .00 .00 .00	021 .00 15.00 .00 6.18	024 .00 .00 .00 .00
1.3 - L RSD ICEM - T				0.47	018	026	021	024
FACTOR WT	014	015	016	017	.00	.00	.00	.00
1) ENVMT CNTL *( 0)	.00	.00	.00	.00		.00	.00	.00
2) MOTIVE PWF *( 0)	. 00	.00	.00	.00	.00	.00	.00	.00
3) DRIVE TRN2 *( 0)	.00	.00	.00	.00	.00		10.00	15.00
4 ELCTL FWF #1 44)	.00	.00	.00	.00	.00	.00	.00	.00
5) ACTUATORS *( 0)	.00	.00	.00	.00	.00	.00		.00
6) STRUCTURE *( 11)	.00		100.00	.00	.00	.00	.00	25.00
7) COMND/ENTL #( 44)	.00	.00	.00	.00	.00	.00	.00	17.78
TOTAL.	.00	.00	11.11	.00	.00	.00	4.44	17.76
1.4 - L RSD ICHM - E	MCINEZ		04.	047	018	020	021	024
FACTOF WT	014	015	016	017		4.17	.00	.000
1) MOTOR CRÉS ( 32)		.42	. 42	.00	.00	.00	.00	.00
D) NOZZLES (16)		.00	5.25	8.50	31.75	.00	.00	.00
3) FUMPS ( 0)		.00	66.67	.00	.00		.00	.00
4) THRST VETE (19)		.00	20.00	.00	.00	.00	.00	.00
5) CHAMRER ( 0)		.00	.00	50.00	.00	.00	.00	
6) PROPELLANT ( 32)		.00	_	.00	.00	.00	.00	
TOTAL	.13	.13	4.82	1.37	5.13	1.35	.00	.00

ICBH-2 TUFSDAY 8/19/1980 17:07

1.4.1 - L RSD	ICRM -	ENGINES	- P	OTOR CS	ES				
FACTOR	WT	014	015	016	017	618	<b>0</b> 20	021	024
1) MNFCT/DSGN		.00	.00	.00	.00	.00	5.00	.00	.00
	#( 8)		5.00	5.00	.00	.00	.00	.00	.00
3) TEST	*( 8)		.00	.00	.00	.00	.00	.00	.00
TOTAL		.42	.42	.42	.00	.00	4.17	.00	.00
		•							
1.4.7 - L BSD	TEHM -	ENGINES	- 1	IDZZLE <i>S</i>					
PACTOR	דש	014	015	016	017	018	020	021	024
1) EXIT COME	*( 35)	-	.00	15.00	10.00	5,00	.00	.00	.00
TO THE GAT!	¥ ( 5(i)		.00	.00	10.00	60,00	.00	00.	.00
3) ATTCH CASE			.00	.00	.00	.00	.00	.00	.00
រក្សា	, -	.00	.00		8.50	31.75	.00	.00	.00
1.4.3 - 1. ETF	TORM -	ENGINES		UMF S					
FACTOR	W٦	014	015	016	017	018	0.7 C	021	0.74
1 F CACCS	*( 22)		.00	100.00	.00	.0≎	.00	.00	. 60
Div. GEALT	*( ??)	.00	.00	50.00	.00	. <b>0</b> 0	.00	.00	.00
3) THERINGS			.00		.00	.00	.00	.00	.00
4 IMPELLERS			.00	50,00	. (1)	.00	.00	.00	.00
SERVER THES	* ( 11)	.00	.00	100.00	.00	. <b>೧</b> ೧	. <u>0</u> 0	. <b>0</b> 0	.00
1007		.00	.00	66.67	.00	.00	.00	.00	.00
1.4.4 - L BIT	TCRM -	ENGINES		thrst vo	TE:				
FACTOR	ыT	014		016	017	01P	050	021	024
1) ACTUATORS	★ ( 33)		.00	<b>4</b> 0.06	.00	.00	-00	. 00	.00
2 ( 138 OR GAS			• 60	10.00	.00	.00	.00	.00	.00
3 CONTROLS	<b>⇒</b> € 330	.00	.00	10,00	.00	.00	.00	.00	.00
TOTAL		.00	.00	20.00	. <b>೧</b> ೧	.00	.00	.00	.00
_									
1.4.5 - L BSD			-	CHAMRER					
EACTOR	WT	014	015	016	017	018	020	021	024
1 · CHISE "	*(100)		.00	760	50.00	.00	. <b>0</b> 0	.00	.00
1.0 EDUT 1482	*( 0)		.00	.00	.00	.00	.00	.00	.00
3 IN IECTUR	<b>★</b> ( 0)		.00	.00	.00	.00	.00	.00	.00
10781		.00	.00	.00	50.00	.00	.00	.00	.00
	1054	ENGINE -		STARTE A	A1#				
1.4.5 - L BSD				PROPFLLA			000		
301743 301743	WT	014	015	016	017	018	020	021	024
1) GRAIN DSGN			.00	.00	.00	.00	.00	.00	.00
SI ANALYSIS	્⊭( 3)		.00	.00	.00	.00	.00	.00	.00
3) COMPOSTIN	*( 11)	•	.00	.00	.00	.00	.00	.00	.00
4) CSTNG CRNG			.00	.00	.00	.00	.00	.00	.00
5) THEST TERM	*( 29)		.00	. <b>0</b> 0	.00	. <b>0</b> 0	.00	<b>.0</b> 0	.00
TOTA!		.00	.00	.00	.00	.00	.00	.00	.00
4 5 1 1257 11	∩61M _ H	.C. 6750)57							
1.5 ~ L BSD 10 FACTOR	LPM - M WT	014	015	016	017	018	020	021	024
1) DESIGN	*( 30)	-	.00	10.00	.00	25.00	.00	.00	.00
2) MANUFCTING									
TOTAL	#1 (0)	.00 .00	5.00	.00	.00	25.00	.00	.00	.00
TUTAL		.00	3.50	3.60	.00	25.00	.00	.00	.00

### ICBM-2 TUESDAY 8/19/1980 17:07

1.6	- L BSD II	CRM	- GDI	NCE , CNTL	_						
	FACTOR		WT	014	015	016	017	018	020	021	024
1)	INERTIAL	(	61)	.00	.00	.00	.00	.00	.00	.00	.00
2)	STELLAR	#(	9)	.00	.00	.00	.00	.00	.00	.00	.00
3)	TRHNL HMNG	#(	30)	.00	.00	.00	.00	.00	. <b>0</b> 0	.00	.00
	TOTAL			.00	.00	.00	.00	.00	.00	.00	.00
. ,	.1 - L #SD	7.0	F.34 6	NICE C	JT1 _ T1	MEGITAL					
1.0	FACTOR	10	₽P! ~ ( ₩T	014	015	016	017	018	020	021	024
4.5	INSTHUT-TH		<b>(</b> 0)	.00	.00	.00	.00	.00	.00	.00	, 00
	GYROS		36)	.00	.00	.00	.00	.00	.00	.00	.00
					.00	.00	.00	.00	.00	.00	.00
	ACCLERMINS		36)	.00 .00	.00	.00	.00	.00	.00	.00	.00
	CONTROL CASES	#(		.00	.00	.00	.00	.00	.00	.00	.00
٠ د	TOTAL	# (	0,	.00	.00	.00	.00	.00	.00	,00	.00
	10111			.00	.00	.00	.00			.00	.00
4 4	.1.4 - L.R:	5 D	TCDM .	_ CDNCE	CNTI -	INERTIA	<u>-</u>	CONTROL			
1 . 6	FACTOR	3 1/	M.L	014	015	016	017	018	020	021	024
4.5	COMPUTERS	,	<b>8</b> 8>	.00	.00	.00	.00	.00	.00	.00	,00
	SOFTWARE			.00		.00	.00	.00	.00	.00	.00
					.00						
	ALGORITHMS		0)	.00	.00	.00	.00	.00	.00 .00	.00	. 00
4)	GEODET/FHY	₽ (	3)	.00	.00	.00	.00	.00		.00	.00
	TOTAL			.00	.00	.00	.00	.00	.00	.00	.00
	.1.4.1 ~ G	DAIC!	ר האדו	_ TAICE	LAITS	- CONTE	÷Ω)	- COMPUT	C 6: C		
1,0	FACTOR	DIVC	E,CRII	014	015	016	017	018	050	021	024
4.5	MEMRY CORE	<b>.</b> (		.00	.06	.00	.00	.00	.00	.00	.00
	INTEG CRCT			.00	.00	.00	.00	.00	.00	.00	.00
	FACKAGING	# (		.00	.00	.00	.00	.00	.00	.00	.00
3,	TOTAL	₩.	.,	.00	.00	.00	.00	.00	.00	.00	.00
	TOTAL			.00	.00	.00	.00	•00	.00	. (///	.0.,
1 7	- L FSD I	r īkm	- RF1	N1EY VCI							
	FACTOR		WT	014	015	016	017	018	020	021	024
4.5	PEN AID	<b>*</b> (		.00	.00	.00	.00	.00	.00	.00	.00
	BOME	#(	5)	.00	.00	.00	.00	5.00	.00	.00	.00
	HEAT SHLD		36)	.00	10.00	.00	10.00	50.00	.00	.00	.00
	STRUCTURE	#(	4)	.00	.00	.00	.00	.00	.00	.00	.00
	NOSE-TIF	*(		.00	.00	.00	.00	40.00	.00	.00	.00
				.00	.00	.00	.00	.00	.00	.00	20.00
( ۵	ARMNG, FZNG	<del>-</del> (	7,							-	
	TOTAL			.00	3.64	.00	3.64	32.98	.00	.00	1.82

A-10

36)

9)

0 0

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0 10

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0

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0

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0

0

(WT

- NOSE-TIP

- ARMNG, FZNG (WT

1.7.5

ICRM-3 WEDNESDAY 8/20/1980 9:22

1 -	- L RSD ICBM									
•	FACTOR	WT	025	026	028	030	031	033	035	036
4.)	TESTING (	5)	.00	16.57	9.71	.00	.00	.00	.00	.00
	PASING (	2)	12.35	.00	16.47	.00	.00	.00	.00	.00
	TEL (	1)	.00	6.67	22.22	.00	.00	6.67	13.33	.00
_	ENGINES (	20)	.00	.00	.00	.00	.00	.00	.00	31.98
	MSL STRUCT (	1)	.00	.00	.00	.00	.00	.00	.00	.00
		26)			5.40	.00	.00	.00	.00	.00
			.00	.00				.00		.00
()		. 45)	.00	.00 .90	.25	3.64	3.64 1.64	.07	.00	6.40
	TOTAL		.25	. 70	2.55	1.64	1.04	.07	. 1.3	C - 4/.
1.1	- L BSD ICAM									
	FACTOR	WT.	025	056	028	030	031	033	035	034
		38)	.00	.00	.00	.00	.00	.00	.00	.00
	INST-IMPGT *C		.00	.00	.00	.00	.00	.00	.00	.00
3)	NUCLE EFCT *	57)	.00	29.00	17.00	.00	.00	.00	.00	.00
	TOTAL		.00	16.57	9.71	.00	.00	.00	.00	. <b>ი</b> ი
1.1	ስ ሀ ዜናው ፤ር	km -			ANCH AF					
	FACTOR	WT	025	026	078	630	031	033	03%	037
1 7	INSMNIATH # (	77)	.00	.00	.00	.00	.00	.00	.00	.00
	#####################################	23)	.00	.00	.00	.00	.00	.00	.00	.00
	TOTAL		.00	.00	.00	.00	.00	, <b>0</b> 0	.00	.00
1.;	- L 535 ICR6	- Fr4	DNIZA							
	FAITTEIL	W٦	025	026	02B	636	031	033	035	036
1.5	CECURITY *(	591	.00	.00	.00	00	.00	.00	.00	.00
	VIDENHALI TY +C		30,00	.00	40,00	.00	.00	.00	.00	.00
	REID CERLY **		.00	.00	.00	.00	.00	.00	. 00	.00
	Trital	0,	12.35	.00	16.47	.00	.00	.00	.00	.00
	171171		12,07		, i.e /	, 00	• 17.7		* 1/11	
1 7	- L BSD 108M	_ T	71							
	FACTOR	WT.	025	026	028	036	031	033	035	63.
• •	ENVMT CNTL *C	<b>w</b> ,	.00	.00	.00	.00	.00	,00	.00	.00
	MOTIVE PUR +1	0)	.00	.00	.00	.00	.00	.06	.00	nr.
	DRIVE TRNS +C	0,	_		.00					.60
		44)	.00	.00 15.00	.00	.00 .00	.00 .00	.00 15.00	-06 36.66	.00
	_							-	-	
	ACTHATORS *(	0)	.00	.00	.00	.00	.00	.00	.00	-00
-		11)	.00	.00	.00	.00	.00	.00	.00	.00
$\alpha$	COMMD/CNTL *(	44)	.00	.00	50.00	.00	.00	.00	00	.00
	TOTAL		.00	6.67	22.22	.00	.00	6.67	13.33	.00
		_								
1.4	- L ASD TERM	_								
	FACTOR	WT	025	026	028	030	031	033	035	036
		32)	.00	.00	.00	.00	.00	.00	.00	.00
		16)	.00	.00	.00	,00	.00	.00	.00	.00
	FUMPS (		33.33	.00	.00	.00	.00	.00	.00	.or
		19)	.00	.00	.00	.00	.00	.00	.00	80.00
		0)	.00	.0≎	.00	.00	.00	.00	.0∿	.00
6)		32)	.00	.06	.00	.00	.00	.00	.00	51.44
	TOTAL		.00	.00	.00	.00	.00	.00	.00	31.98

ICBM-3 WEDNFSDAY 8/20/1980 9:22

1 4	1 - L BSD	TC	RM -	ENGINES	- MO	TOR CSE	2				
1.7.	FACTOR	10,	WT	025	026	028	030	031	033	035	036
4.5	MNFCT/DSGN	<b>#</b> (		.00	.00	.00	.00	.00	.00	.00	.00
	ANALYSIS	#(	8)	. <b>0</b> 0	.00	.00	.00	.00	.00	.00	.00
	TEST	<b>*</b> (	8)	.0°	.00	.00	.00	.00	.00	.00	.00
3,	TOTAL	<b>*</b> (	6,	.00	.00	.00	.00	.00	.00	.00	.00
	TUTAL.			.00	.00	.00	.00	.00	.00	.00	
1.4	.2 - L BSD	IC	•			IZZLES					
	FACTOR		WT	025	026	028	630	031	033	035	036
1)	EXIT CONE	₩(	35)	.00	.00	.00	.00	.00	.00	. <b>0</b> 0	.00
2)	ZTADAHT	# (	50 ≥	.00	.00	.00	. ര	. രഹ	.00	.00	.00
3)	ATTCH-CASE	₩ (	15)	.00	.00	.00	.00	.00	.00	.00	.00
	TOTAL			.00	. <b>0</b> 0	.00	.00	.00	.00	.00	.00
1.4.	424 J - E.	10	ķm -	<b>ENGINE</b>	- F'(						
	FACTOR		WΤ	ひごに	026	OPE	030	031	033	0 ፕ ፣	0 3 ኡ
1 1	CASES	# (	27	.06	.00	.00	.06	.00	, <b>0</b> 0	.00	.00
	GEART	<b>*</b> (	220	50.00	.00	.00	.00	.00	.00	.00	.00
	TURRINES	* (	22)	50.00	.00	.00	.00	. იი	.00	.00	00
	IMPELLERS		22)	50.00	.00	.00	.00	.00	.00	.00	.00
	REAR ING		11)	. (1)	.00	.00	.00	0.5	.60	.00	.00
٠, ر	TOTAL		,	33.33	.00	.00	. (00)	.07	.00	.00	.06
	TOTAL.			23.27	• • • • • • • • • • • • • • • • • • • •	• **	• `	• **	• • •	• • • •	• • • • •
	.4 - L BSD	10	T: M	ENICTALES	_ TL	IRST VOT	E.				
1.4		,,						674	077	035	0.7
	FACTOR		WT	025	059	028	030	031	033		036
	ACTUATORS		33)	.00	.00	.00	.00	.00	.00	.00	60.00
	TIO OF GAS			.00	.00	.00	.00	.00	.00	.00	90.00
3)		* (	33 (		.00	.00	.00	.00	.00	.00	90 00
	TOTAL			.00	.00	.00	.00	.00	.00	.00	<b>8</b> 0. <b>0</b> 6
1.4	.5 - L BSD	IC				IAMREF					
	FACTOR		WT	いこと	026	<b>03</b> 6	636	031	033	035	036
1)	CASES	# (	100)	.00	.00	.00	.00	.00	.00	.00	100
3)	CDOI.ING	₩(	(G)	.00	.00	.00	.00	.00	.00	.00	.00
3)	IN JECTOR	₩ (	0)	.00	.00	.00	.00	.00	. <b>0</b> 0	.00	.00
	TOTAL			.00	.00	.00	.00	.00	.00	.00	.00
1.4	.6 - L BSD	IC	FM -	ENGINES	- F'F	ROPELLAN	1				
	FACTOR		WT	025	026	028	030	031	033	035	036
1)	GRAIN DEGN	# (		.00	.00	.00	.00	.00	.00	.00	40.00
	ANALYSIS	*(	3)	.00	.00	.00	.00	.00	.00	.00	50.00
	COMPOSTIN		11)	.00°	.00	.00	.00	.00	.00	.00	50.00
	CSTNG CRNG			.00		.00	.00	.00	.00	_	15.00
	THRST TERM			.00	.00 .00		.00	.00	.00	.00	100.00
ر د		<b>*</b> (	24)			.00					
	TOTAL			.00	.00	.00	.00	.00	.00	.00	51.44
, =	- L BSD 1	~ 5 2-	_ M	CI							
1.5	FACTOR	U PM	- m Wĭ	025	026	028	030	031	033	035	036
4.5	DESIGN	<b>#</b> /	30)	.00	.00	.00	.00	.00	.00	<b>,0</b> 0	.00
	MANUFCTING										- ** **
23		₩ (	70)	.00	.00	.00	.00	.00	.00	.00	.00
	TOTAL			.00	.00	.00	.00	.00	.00	. <b>o</b> o	.00

#### ICBM-3 WEDNESDAY 8/20/1980 9.22

1.6	- L BSD IC	CBM	- GD	NCE , CNTL							
	FACTOR		WT	025	026	028	030	031	033	035	036
1)	INERTIAL	(	61)	.00	.00	.00	.00	.00	.00	.00	.00
2)	STELLAR	₩(	9)	.00	.00	60.00	.00	.00	.00	.00	.00
3)	TRMNL HMNG	# (	30)	.00	.00	.00	.00	.00	-00	. <b>0</b> 0	.00
	TOTAL			.00	.00	5.40	.00	.00	.00	.00	.00
1.6	1 - L BSD	IC									
	FACTOR		WT	025	026	028	030	031	033	035	036 ,00
	INSTMNT-TM		0)	.00	.00	.00	.00	.00	.00	.00	
	GYROS		36)	.00	.00	.00	.00	.00	.00	.00	.00
	ACCLERMIRS			.00	.00	.00	.00	. 00	.00	.00	.00 .00
	CONTROL		36)	.00	.00	.00	.00	.00	.00	.00 .00	.00
٥)	CASES	# (	0)	.00	.00	.00	.00	.00	.00		-
	TOTAL			.00	.00	.00	.00	.00	.00	.00	.00
1.6	.1.4 - L R	5D 1	ICEM	- GDNCE.	CNTL -	INFRI	AL -	CONTROL			
	FACTOR		WT	624	006	028	030	031	033	035	036
10	COMPUTERS	(	883	.00	.00	.00	.00	.00	. <b>0</b> 0	.00	.00
20	SOFTWARE	• (	9)	.00	.00	.00	.00	. <b>o</b> o	.00	.00	.00
-	ALGORITHM.		0,	.00	.00	.00	.00	.00	.00	.00	.00
	GEODET/PHY		30	.00	.00	.00	.00	.00	.00	.00	.00
•	TOTAL		-	.00	.00	.00	.00	.0	.00	.00	.00
						,	-				
		DAIC I			774.	C0117		- COMPUT	F 1. C		
1.0	.1.4.1 - G1 FACTOR	ו,ואנו	·,t.Ni WT	L - INFF 025	026	- CONT 028	601. 030.	- COMPUT	033	035	036
4.1	MEMAY CORE			.00	.00	.00	.00	.00	.00	.00	.00
	INTEG CRCT			.00		-			.00	.00	.00
	PACKAGING			.00	.00	.00	.00	.00 .00	.00	.00	.00
3,	TOTAL	* (	) i	.00	.00		.00	.00	.00	.00	00
	TUTAL			.00	.00	.00	.00	.00	.00	.00	(91)
1.7	- 1 BSD 10	CHM									
	FACTOR		WT	025	026	028	030	031	033	035	037
	PEN AID	₩ (	9)	.00	.00	.00	.00	.00	<b>.0</b> 0	.00	.00
-	ROME	# (	5)	.00	.00	5.00	. <b>0</b> 0	.00	.00	.00	.00
	HEAT SHLD	₩(	36)	.00	.00	.00	.00	.00	.00	.00	.00
	STRUCTURE	* (	4)	.00	.00	.00	.00	.00	.00	. 60	.00
	NU SE - LIE	# (		.00	.00	.00	10.00	10.00	.00	.or	.00
6)	ARMNG, FZNG	₩ (	ዎ)	.00	.00	.00	.00	.00	.00	.00	.00
	TOTAL			.00	.00	.25	3.64	3.64	.00	.00	.00

. The second of the contract of the second of the second

<del>-</del>			L BSD JCRM	(WT:	1 <b>0</b> 0)								-
1.				(UT:	38)							_	_
	1.1.1			(NT	77)	Θ	Ð	15	0	0	0	0	0 0
١.	1.1.2		4 2 2 4 11112 112	(WT:	23)	0	0	50	0	0	0	0	0
	1.2		*****	(WT:	5)	0	0	50 0	<u>စ</u>	Ö	Õ	õ	ē
	1.3			(WT:	57) 2)	U	U	•	•	v	•	•	-
1.	2.1		BASING SECURITY	(WT:	59)	o	0	0	0	0	0	Ø	0
	2.2			(WT	41)	0	0	0	0	0	Θ	0	0
	2.3		RELD CPBLY	(WT	0)	0	0	0	0	0	0	0	6
1.	3		TEL	(WT.	1)	^	0	0	0	0	0	0	0
	3.1		FNVMT CNTL MOTIVE FWR	(WT	0) 0)	0	0	ò	ŏ	ò	ŏ	ò	0
	.3.2 .3.3	_	DRIVE TRNS	(WT	0)	0	0	0	0	0	0	0	0
	3.4	-	ELCTL PWR	(WT	44)	0	15	0	0	0	0	0	0
	3.5	-	ACTUATORS	(WT	0)	0	Ö	0	0	0	0 6	0	6 0
	.3.6	-	STRUCTURE	(WT	(1)	0	0 0	0	0	0	Ö	ő	Ö
	.3.7	-	COMMD/CMTL	(WT (WT	44) 20)	O	ν,	ν.		•	,	,	
	. 4 . 4 . 1	-	MOTOR CSES	(WT	32)				•				
	4.1.1	_	MNFCT/DSGN	(WT	A3)	0	0	O	0	0	0	0	0
	4.1.2	_	ANALYSIS	(WT	<b>(9</b> )	0	0	0	0	40	0	0	6
1	.4.1.3	-	TEST	(WT	8)	ဂ	O	0	0	50	0	0	()
	.4.2	-	NOZZLES	(WT	16) 35)	0	0	0	0	0	0	0	0
	.4.2.1 .4.2.2	_	THROATS	(WT	50)	č	ő	ŏ	Ö	Ö	0	0	0
	.4.2.3	-	ATTCH-CASE	(WT	15)	0	0	0	O	0	0	0	0
	.4.3	-	FUMF:S	(WT	0)			_			^	^	0
1	.4.3.1	-	CASES	(WT	22)	0	0	0	0	0	0	0	0
	.4.3.2	-	GEAFS	(WT	22) 22)	0	0	0	0	0	Ô	ő	ò
	.4.3.3	_	TURBINES IMPELLERS	(WT	22)	õ	ŏ	Č	ō	0	0	0	0
	.4.3.4 .4.3.5	_	REARINGS	(WT	11)	ò	ō	0	0	0	0	0	0
	.4.4	-	THRST VCTF	(WT	19)					_	_		0
1	.4.4.1	-	ACTUATORS	(WT	33)	0	0	0	0	0	0	0	0
	.4.4.2	-	FIG OF CAS	(WT	33) 33)	0	0	0	Ö	0	Ó	ő	ő
	.4.4.3 .4.5	_	CONTROLS CHAMBER	CWT	()	\'	٧,		Ť				
	.4.5.1	_	CASES	(WT	100)	0	0	0	0	0	0	0	0
	.4.5.2	-	CODITING	(WT	0)	0	0	O	0	0	0	0	6
1	.4.5.3	-	INJECTOR	(WT	0)	0	0	0	0	0	0	0	0
	.4.6	_	FROFELLANT		32) 29)	0	0	0	0	0	0	0	0
	.4.6.7	-	GRAIN DEGN ANALYSIS	(WT	3)	ő	ő	ő	Ô	ō	0	0	0
	,4.6.3	_	COMPOSTIN	(WT	11)	ō	0	0	0	0	0	0	0
	.4.6.4	-	CETHG CRNG	CWT	29)	0	0	0	0	0	0	0	O
	.4.6.5	-	THRST TERM		29)	0	0	n	0	0	0	0	0
	.5	_	MSL STRUCT DESTON	(WT	1) 30)	0	0	0	0	0	0	0	0
	.5.1 .5.2	_	MANUFCTING		70)	ō	0	ō	0	0	0	0	0
	.6	_	GDNCE, CNTL		26)								
	.6.1	-		(WT	_	_		•	^	^	^	•	0
	.6.1.1	-	THE THAT SALE			0 15	0	0	0 35	0 0	0 5	0	Ö
	1.6.1.2	-	- GYROS - ACCLERMIRS	TW) TW):		40	0	Ö	60	0	ō	ő	ŏ
	1.6.1.3 1.6.1.4	_	CONTROL	(WT			_	-					
	1.6.1.4.1	-	COMPUTERS	(WT	88)		_	_	_		_	_	
1	1.6.1.4.1.				_	0	0	0	0	10	0	0	0
	1.6.1.4.1.					0	0	0	0	100	0	0	0
	1.6.1.4.1.		- PACKAGING - SOFTWARE	(WT		0 0	0	0	0	30	ő	ő	ő
	1.6.1.4.2		- ALGORITHMS			ő	ŏ	ŏ	ō	ő	ō	ō	0
	1.6.1.4.4	-	- GEODET/PHY		_	0	0	0	0	0	0	0	0
	1.6.1.5	-	- CASES	(WT		0	0		10	0	0	0	0
	1.6.2	-	- STELLAR	(W)		0	0	_	0	0	0	0 50	0
	1.6.3	•	- TRMNL HMN( - RENTRY VCI			()	v	<b>.7</b> 0	v	v	V	20	v
	1.7 1.7.1		- RENIKT VCI - FEN AID	(W)		0	0	0	0	0	0	0	6
	1.7.2		- BOME	(W	_	0	0	_	0	0	40	0	0
	1.7.3		- HEAT SHLD	(W)		0	0	_	0	0	10	0	0
						-							
	1.7.4	•	- STRUCTURE	(M)		0	0		0	0	9 20	0	
		•	- STRUCTURE - NOSE-TIF - ARMNG.FZN	(₩	36)	ი 6 0	0 20	0	0 0 40	0 0 0	20 0	0	20 20

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1 - L 1	BSD ICEN	4									
FAC		•	WT	037	038	041	<b>0</b> 50	054	061	062	965
1) TES		(		.00	.00	6.78	.00	.00	.00	.00	.00
2) BAS		Ċ		.00	.00	.00	.00	.00	.00	.00	.00
3) TEL	_	(	1)	.00	6.67	.00	.00	.00	.00	.00	.00
4) ENG	INES	(	20)	.00	.00	.00	.00	1.62	.00	.00	.00
5) HSL	STRUCT	(	1)	.00	.00	.00	.00	.00	.00	.00	.00
	CE, CNTL	(	26)	9.98	.00	15.00	17.75	10.10	1.11	15.00	.00
7) REN'	TRY VCL	(	45)	.00	1.82	.00	3.64	.00	12.93	.00	1.83
TOT	AL			2.60	. <b>8</b> 8	4.24	6.25	2.95	6.11	3.90	.82
1.1 - 1	L BSD IE	DEM	- TE	STING							
FAC:	TOR:		WT	037	038	041	050	054	061	063	965
1) LAN	CH AREA	(	38)	.00	.00	11.54	.00	.00	.00	.00	.00
	-	<b>*</b> (	5)	.00	.00	50.00	.00	.00	.00	.00	.00
	LR FFCT	<b>*</b> (	57)	.00	.00	.00	.00	.00	.00	.00	.00
TOT	AI.			<b>.0</b> 0	.00	6.78	. <b>0</b> 0	.00	.00	.00	.00
1.1.1	- L BSD	ICI	AM -	TESTING	- L	ANCH AR	EA				
FAC	10F		W٦	037	038	041	050	054	061	062	965
1) INS	NTATN	<b>*</b> (	77)	.00	.00	15.00	.00	.00	.00	.00	.00
<ol> <li>2) SIL</li> </ol>	CI-HRDNS	<b>*</b> (	23)	.00	.00	.00	.00	.00	.00	.00	.00
יוחד	AL			.00	.00	11.54	.00	.00	.00	.00	.00
1.2 - 1	\$200 TO	· E.M	_ 10/	STAIC							
FAC		, Erri	MI.	037	038	041	050	054	061	062	965
1) SEC		<b>#</b> /	<b>5</b> 9)	.00	.00	.00	.00	.00	.00	.00	.00
	NEARLTY			.00							
	D CFBLY		41)	.00	.00 .00	.00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00
TOTA		~ \	0,	.00	.00	.00	.00	.00	.00	.00	.00
1011	n.			.00	.00	.00	.00	.00	.00	. (91)	.00
1.3 - 1		CHM									
FAC			WT	037	038	041	050	054	061	095	065
	MT CNTL		0)	.00	.00	.00	.00	.00	.00	.00	.00
	IVE PWR		0)	.00	.00	.00	.00	.00	.00	.00	.00
		₩(	0)	.00	.00	.00	.00	.00	.00	.00	.00
4) ELC		* (	44)	.00	15.00	.00	.00	.00	.00	.00	.00
	UATORS	₩(	(0)	.00	.00	.00	.00	.00	.00	.00	.00
	UCTURE		11)	.00	.00	.00	.00	.00	.00	.00	.00
TOTA	ND/CNTL	<del>*</del> (	44)	.00 .00	.00	.00	.00	.00	.00	.00	.00
1011	HL			.00	6.67	.00	.00	.00	.00	.00	.00
1.4 - [		CRM			070		AF.		• • •		
FAC:		,	WT	937	038	041	050	054	061	967	965
	DK CSES		32)	.00	.00	.00	.00	5.00	.00	.00	.00
	ZLES		16)	.00	.00	.00	.00	.00	.00	.00	.60
3) FUMI	-	(	0)	.00	.00	.00	.00	.00	.00	.00	.00
4) THR: 5) CHA	ST VCTR	(	19)	.00 .00	.00	.00	.00	.00	.00	.00	.00
	PELLANT		32)	.00	.00	.00	.00	.00	.00	.00	.00
TOTA		`	ريد	.00	.00	.00	.00	.00	.00	.00	.00
1016	HL			.00	.00	. <b>0</b> 0	.00	1.62	.00	.00	.0೧

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1.4.1 - L BSD ICBM FACTOR WT	637	038	OR CSES	<b>05</b> 0	054 .00	061 .00	062 .00	065 .00
1) MNFCT/DSGN #( B3	.00	.00	.00	.00		.00	.00	.00
2) ANALYSIS #( B	.00	.00	.00	.00	40.00	.00	.00	.00
3) TEST #( B	.00	.00	.00	.00	20.00	.00	.00	.00
TOTAL	.00	.00	.00	.00	5.00	.00	• 00	• • •
TOTAL								
ACD TODA	_ ENGINES	- NDZ	ZLES					96°
1.4.2 - L RSD ICRM	037	038	041	050	054	061	695	.00
		,00	.00	.00	.00	.00	.00	
I / EALI DONE		.00	.00	.00	.00	.00	.00	.00
2) THROATS #( 50		.00	.00	.00	.00	.00	.00	. 60
3) ATTCH-CASE *( 15	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	.00	. 00	• • • •	•				
		- F:U	ME· C					
1.4.3 - L RED TORM	- ENGINE?	038	041	050	054	061	ዕራን	065
FARTOR W			.00	.00	.00	<b>, 0</b> 0	.0∩	<u>. 0</u> 0
1) CASES *( 2)		.00		.00	.00	.00	.00	.00
2) GEARS #( 2)		.00	.00	.00	,00	.00	.00	.00
3) TURBINES #/ 2	.00	.00	.00		.00	.00	.00	.00
4) IMPELLERS #( 2	2) .00	, <b>0</b> ()	.00	.00		.00	.00	.00
5) REARINGS *( 1	1) .00	. <b>o</b> o	.00	.00	.00		.00	.00
TOTAL	.00	.00	. രറ	.00	.00	.00	.00	
1.4.4 - L RSD ICRM	- ENGINES	- TH	RST VOT	F.				065
	т 037	038	041	950	054	061	665	.00
THO TON		.00	.00	.00	.00	.00	.00	
		.00	.00	.00	.00	.00	.00	.00
2) LIQ OR GAS #( 3		.00	.00	.00	.00	. <b>o</b> o	.00	.00
37 60000000	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		, ,						
		- 6	HAMBER					
1.4.5 - L BSD ICEM	- ENGINES	038	041	050	054	061	962	065
I MC 1101	IT 037			.00	.00	.00	.00	.00
1) CASES #(10		.00	.00	.00		.00	.00	.00
2) COOLING *(		.00	.00			.00	.00	.00
3) INJECTOR #(	00.00	.00	.00	.00		.00	.00	.00
TOTAL.	.00	.00	.00	.00	.00	• 64.67	•••	•
1.4.6 - L RSD ICH	4 - ENGINES		ROFELLA		A	061	062	065
FACTOR	WT 037	038	041	050		.00	.00	.00
1) GRAIN DSGN #(	29) .00	.00	. <b>o</b> o	.00			.00	.00
2) ANALYSIS #(	3) .00	.00	.00	.00		.00		.00
3) COMPOSTIN *(	•	.00	.00	.00		.00	.00	
3) COMPOSITION A		.00	.00	.00	.00	.00	.00	.00
4) ESTNG ERNG *(		.00	.00	.00	.00	.00	.00	.00
5) THRST TERM *(	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	.00	•••						
1.5 - L BSD ICRM	- MSL STRUC	:T			) 054	061	062	065
FACTOR	WT 037	03H	041	050			.00	.00
1 110	30) .00	.00	.00	.00		.00		.00
2) MANUFCTING #(		.00	.00	.00		.00	.00	.00
TOTAL	.00	.00	.00	. 00	.00	.00	.00	.0.7

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1.4	- L BSD I	CRM	- GI	NCE . CNTL							
	FACTOR		MT.	937	038	941	050	054	961	967	965
1)	INERTIAL	(	61)	16.36	.00	.00	29.09	16.56	1.82	.00	.00
	STELLAR		9)	.00	.00	.00	.00	.00	.00	.00	.00
	TRANL HANG			.00	.00	50.00	.00	.00	.00	50.00	.00
•	TOTAL			9.98	.00	15.00	17.75	10.10	1.11	15.00	.00
					•	•					
1.6	.1 - L BSD	IU	MU -	6DNCE , Cr	038	NEK 11HL 041	050	054	061	962	065
	FACTOR					.00		.00	.00	.00	.00
	MT-TMMT2NI			.00	.00	-	.00		-		
	GYROS		36)	15.00	.00	.00	35.00	.00	5.00	.00	.00
	ACCLERMIRS			40.00	.00	.00	60.00	.00	.00	.00 .00	.00
			36)	.00	.00	.00	.00	45.54	.00	.00	.00 .00
.D.)	CASES	₩ (	<b>O</b> )	.00	.00	.00	10.00	.00	.00		
	TOTAL			16.36	.00	.00	29.00	16.56	1,82	.00	. <b>0</b> 0
	4 4 1 7	~~	T C 5:24	EBNOE	CHTI	THEST	• (	CONTROL			
1.0	.1.4 - L B.	<i>U</i>								0.0	0.1
	FACTOR		₩T	037	038	041	050		061 .00	060 060	780
			88)	.00	.00	.00	.00	51.75	-		. 00
-	SOFTWAFF	₩ (		.00	.00	.00	.00		.00	.00	.00
	ALCOPITHM"			.00	.00	.00	.00		.00	.00	.00
4 )	GEODET (FIH)	* (	3)	.00	.00	.06	.00		.00	.00	.00
	TOTAL			.00	.00	.00	.00	45.54	.00	. <b>o</b> o	. <b>ര</b> ന
	.1.4.1 - 6	DAIC.	ב ליצו:	TI _ TNES	ETTAL	CONT	MD),	- กกพระบ	TEER		
1.0	EACTOR	17141.	WT	037	038	041	056		061	06ን	965
	MEMET CORE			.00	.00	.00	.00	10.00	-00	.00	.00
	INTEL CRET			.00	.00	.00	-	100.00	.00	.00	.00
	PACKAGING		5)	.00	.00	.00	.00	35.00	.00	.00	.00
÷.	TOTAL	# '	20	.00	.00	.00	.00		.00	.00	.00
	HILIBE			.00	.00	.00	. (***)	51.75	.00	.(,,,	. (11)
1 7	- 1 BSt I	ርፑሎ	- F1	ENTRY VOI							
	FACTOR		WT	037	038	041	050	054	061	067	065
1 '	FEN ATT	# (	9)	.00	.00	.00	.00	.00	.00	.00	.00
	Islam !-	# (	<del>(</del> )	.00	.00	.00	.00	.00	40.00	.00	.00
	THE TATH	# (		.00	.00	.00	.00	.00	10.00	.00	.00
	STRUCTURE		4)	.00	.00	.00	.00	.00	.00	.00	.00
	NOSE-TIF	* (		.00	.00	.00	.00	.00	20.00	.00	.00
	ARMNG FZNG			.00	20.00	.00	40.00	.00	.00	.00	20.00
•	TOTAL	- ,	. ,	.00	1.82	.00	3.64	.00	12.93	.00	1.82
				/	,		0.07	. • •			1.00

1.5.2

1.6.1

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1.6.1.4.1

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1.6.1.4.3

1.6.1.4.4

1.6.1.5

1.6.2

1.6.3

1.7.1

1.7.2

1.7.3

1.7.4

1.7.5

1.7.6

1.7

1.6.1.4.1.2

1.6.1.4.1.3 -

1.6

MANUFCTING (WT

GDNCE, ENTL (WT

- INSTMMT-TH (WT

- ACCLERMIRS (WT

INTEG CRCT (WT

ALGORITHMS (WT

GEODET/PHY (WT

TRMNL HMNG (WT

RENTRY VCL (WT

- ARMNG, FZNG (WT.

- INFRITIAL

- GYRDS

1.6.1.4.1.1 - MEMRY CORE (WT

- CONTROL

- COMPUTERS

PACKAGING

SOFTWARE

CASES

STELLAR

PEN AID

HEAT SHID

STRUCTURE

NOSE-TIF

- BOME

70)

26)

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36)

27)

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88)

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ICBM-5 TUESDAY 8/19/1989 16:42

1) 2) 3) 4) 5)	RASING ( TEL ( ENGINES ( MSL STRUCT ( GDNCF,CNTL (	1)	966 18.17 .00 .00 .00 .00 .00	068 .00 .00 .00 .00 .00 6.21 .00	970 8.40 .00 .00 .00 .00 .00	071 22.90 .00 .00 .00 .00 .00	072 .00 .00 .00 9.10 3.00 .00	973 4.66 .00 .00 .00 .00 .00	075 .00 .00 .00 1.08 .00 9.08 2.02 3.48	078 .00 .00 .00 .00 .00 .00 .00 4.09
4 4	- L BSD ICEM	- TF	ONT TO							
1)	FACTOR	WT 38) 5)	066 17.69 .00	9 <b>60</b> 00. 00.	076 11.54 .00 7.00	071 34.62 .00 17.00	072 .00 .00	073 9.23 .00 2.00	075 .00 .00	078 .00 .00
5	TOTAL	J ( /	18.17	.00	8.40	22.90	.00	4.60	.00	.00
1.1	.1 - E RSD JC FACTOR	₩T			ANCH AR 070	E4 071	07?	073	075	07F
		77)	23.00	.00	. 00	30.00	.00	12,00	.00	.00
23	2110-HFDW. *1	23)	.00	. <b>o</b> o		50.00	.00	.00	. <b>0</b> 0	.00
	TOTAL		17.69	. <b>0</b> 0	11.54	34.60	.00	9.23	.00	.00
1) 2)	- L RSD ICHM FACTOR SECURITY *C VULNEARLTY *C RELD CERLY *C TOTAL	WT 59) 41)	700. 00. 00. 00. 00.	06F .00 .00 .00	070 .00 .00 .00	071 .00 .00 .00	077 .00 .00 .00	073 .00 .00 .00	075 .00 .00 .00	078 .00 .00 .00
1.3	- L RSD ICRM	- TF	- t							
	FACTOR	WT	066	980	070	071	072	073	075	078
1)	ENVHT CNTL # (	0)	.00	.00	.00	.00	.00	.00	.00	.00
	MOTIVE PWF #(	0)	.00	.00	.00	.00	.00	.00	.00	.00
3 )	DRIVE TRNS *(	0)	<b>.0</b> 0	.00	.00	.00	.00	.00	. <b>o</b> o	.00
4)	FLOTE PUR +(	44)	.00	.00	.00	.00	.00	.00	.00	.00
5)	ACTUATORS *(	0)	.00	.00	.00	.00	.00	.00	.00	.00
6)	STRUCTURE #(	11)	.00	.00	.00	.00	.00	.00	.00	.00
7)	COMND/CNTL *(	44)	.00	.00	.00	.00	.00	.00	.00	.00
	TOTAL		.00	.00	.00	.00	.00	.00	.00	.00
· A	- L BSD ICRM	_ F	UC THE C							
	FACTOR	WT.	066	068	070	071	072	073	075	078
1.)		32)	.00	.00	.00	.00	21.67	.00	3.33	.00
		16)	.00	.00	.00	.00	4.25	.00	.00	.00
	FUMFS (		.00	.00	.00	.00	.00	.00	.00	.00
		19)	.00	.00	.00	.00	.00	.00	.00	.00
	CHAMBER (		. <b>o</b> ŏ	.00	.00	.00	.00	.00	.00	.00
		32)	.00	.00	.00	.00	4.36	.00	.00	.00
	TOTAL		.00	.00	.00	.00	9.10	. <b>0</b> 0	1.08	.00
					•	"				

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1.4.1 - L RS	D ICRM -	- ENGINES	- MO	TOR CSE	2:				
FACTOR	WT	966	968	970	071	072	<b>073</b>	075	078
1) MNFCT/DSG	N #( 83)	.00	.00	.00	.00	25.00	.00	.00	.00
2) ANALYSIS	#( 8)	.00	.00	.00	.00	10.00	.00	20.00	.00
3) TEST	#(8)	. <b>0</b> 0	.00	.00	.00	.00	.00	20.00	.00
TOTAL		. 00	.00	.00	.00	21.67	.00	3.33	.00
1.4.2 - L BS	D ICBM -	- ENGINES	- NO	ZZLES					
FACTOR	WT	066	96R	070	071	07.	073	075	07R
1) EXIT CONE	*( 35)	.00	.00	.00	.00	5.00	.00	.00	. <b>0</b> 0
2) THROATS	<b>*( 50)</b>	.00	.00	.00	.00	5.00	.00	.00	.00
3) ATTCH-CAS	E *( 15)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	4.25	.00	.00	.00
			_						
1.4.3 - L BC			- F'(						
FACTOR	WT	966	068	070	071	072	073	075	07B
1) CASES	#( 22)		.00	.00	.00	. <b>0</b> 0	.00	<b>. 0</b> 0	. <b>0</b> 0
20 GEARS	<ul> <li>★( 22)</li> </ul>		.00	.00	.00	.00	. <b>0</b> 0	.00	.00
3) TURBINES	*( DD)	.00	.00	.00	.00	.00	. 00	.00	. <b>0</b> 6
4 * IMPELLERS	<b>*</b> ( 22)		.00	. <b>0</b> 0	. <b>0</b> 0	.00	.00	.00	.00
5 - BEARTNGS	*( 11)		.00	.00	.00	.00	.00	. <b>೧</b> ೧	. <b>0</b> 0
1(i1A)		.00	.00	.00	.00	.00	.00	.00	.00
1.4.4 - L B.	T. TCEM _	ENCINES	- TH	IRST VCT	· E				
FACTOR	., ,, ,, , W.T.	-	068	070	071	072	073	075	07B
1/ ACTUATORS	*(33		.00	.00	.00	.00	.00	.00	.00
10 110 OF 64			00	.00	.00	.06	.00	.00	.00
3) CONTROLS			.00	.00	00	.00	.00	.00	.00
TOTAL	# C 35.	.00	.00	.00	.00	.00	.00	.00	.00
, , , , , , ,		• (7)	• (7.	. (///	• (///		.00		. (///
1.4.5 - L BS	D ICEM -	- ENGINES	- CH	IAMRER					
FACTOR	W٦	066	930	070	071	072	073	075	078
13 CASES	* C100	.00	.00	.00	.00	.00	.00	.00	.00
10 COULTNO	<b>▶</b> ( 0 )		.00	.00	.00	.00	.00	.00	.00
3 INJECTOR	#1 0		.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00
			• • • •	.00	• ***	• (/ (/	.00	• •	• • • •
1.4.6 - L BS	D JCRM -	- ENGINES	- FR	OFELLAN	IT.				
FACTOR	WT	066	980	070	071	072	073	075	078
1) GRAIN DSG	N #( 29)	.00	.00	.00	.00	10.00	.00	.00	.00
2) ANALYSIS	#( 3)	.00	.00	.00	.00	50.00	.00	.00	.00
3) COMPOSTIN	#( 11)		.00	.00	.00	.00	.00	.00	.00
4) CSTNG CRN			.00	.00	.00	.00	.00	.00	.00
5) THRST TER			.00	.00	.00	.00	.00	.00	.00
TOTAL		.00	.00	.00	.00	4.36	.00	.00	.00
1.5 - L BSD	JCRM - N	STRUCT							
FACTOR	WT		968	070	071	072	073	075	07B
1) DESIGN	*( 30:		.00	.00	.00	10.00	.00	.00	.00
2) MANUFCTIN	G # ( 70)		.00	.00	.00	.00	. 90	.00	.00
TOTAL		.00	.00	.00	.00	3.00	.00	.00	.00

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1.6	- L BSD IC	CBM	- GDN	CE, CNT	L						
	FACTOR		WT	066	968	070	071	072	073	075	078
1)	INERTIAL	(	61)	.00	10.18	.00	.00	.00	.00	14.88	.00
2)	STELLAR	<b>*</b> (	9)	.00	.00	.00	.00	.00	.00	. <b>0</b> 0	.00
3)	TRMNL HMNG	* (	30)	.00	.00	.00	.00	.00	.00	.00	. <b>0</b> 0
	TOTAL			.00	6.21	.00	.00	.00	.00	୭.୧୫	.00
	4 1 7/55	T.C.	г. -	NUCE C	MTI - TA	JEET TAI					
1.6	.1 - L BSD FACTOR		661 - 61 WT	086	9A9	070	071	07.7	073	075	675
4.5	INSTMUT-TM		-	.00	.00	.00	0.00	,00	.00	.00	.00
	-		361	.00	25,66	.00	,00	.00	.00	.00	, (ni
	GYROS				.00	.00	.00	.00	,00	00	.00
	ACCLERMING			.00	3.00	-00	.00	,00	.00	40.92	.00
	CONTROL CASES		36+	.00 .00	.00	.07	.00	.06	.00	.00	.00
5,		•	0,	. 00	10.18	, co	.00	.00	0.0	14 59	.00
	TOTAL			. (11)	10.15	, , , ,	• • • • • • • • • • • • • • • • • • • •	• (	. (	1 - 11 -	
	_					*		CONTINUE			
1.6	.1.4 - L F.	71						CONTROL			
	FACTOR		WT	(20,0.	648	670	071	67	653	075	078
	• • · · · · · · · · · · · · · · · · · ·		80 (	.00		. (0)	00	. <b>0</b> 0	.00	40.50	. 0
-	SCIF TWAFF	# (		. 600	.66	.00	.05	.00	.00	.00	.00
_	ALGORITHMS			.00	$_{\epsilon}$ $O_{\epsilon}$	.00	. 00	.06	. (0.1	.00	.00
4)	GEODET ZEHT	• •	3)	.00	100.00	.00	$\cdot$	.00	.00	. ტნ	. 00
	TOTAL			.00	3.00	.00	.00	.00	.00	40.92	0.0
1.6	.1.4.1 - GI	שורו	E, CNTL	- INF	FILM	- CONTEC	(	- COMPUTE	r 7		
	FACTOR:		WT	066	0.60	070	071	070	073	075	074
1)	MEMRY CORE	<b>*</b> €	500	.00	.00	.00	.00	.00	.00	90 00	.00
2)	INTEG CROT	<b>₩</b> (	45	.00	.00	.00	.00	.00	.00	.00	.00
3)	FACKAGING	₩ (	5.)	.00	.00	.00	.00	.00	.00	30,00	.00
	TOTAL			.00	.00	.00	.00	.00	.00	46.50	.00
1.7	- 1. ESD 1	CRM	- REN	TEY VO	ι						
	FACTOR		WT	066	930	070	071	07.	073	075	078
1)	PEN AIT	<b>*</b> ι	9)	.00	.00	.00	.00	.00	.00	. 00	100,00
	ROME	# 1		.00	.00	10.00	.00	-	.00	40.00	.00
	HEAT SHIT		36	.00	.00	.00	.00	-	.00	.00	0.0
	STRUCTURE	# (	4)	.00	.00	.00	.00		.00	.00	, 66
	NOSE-TIF	* (	36)	.00	.00	.00	.00		.00	.00	.00
	ARMNG FZNG		91	.00	.00	.00	.00		.00	.00	.00
•	TOTAL		•	.00	.00	.51	.00		.00	2.02	9.09
					• . •						-

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1.7.5

1.7.6

- NOSE-TIF

- ARMNG, FZNG (WT

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+ ~ L BSD ICBM								
FACTOR WT	080	<b>084</b>	880	089	096	99R	D12C1	COWMI
1) TESTING ( 5		.00	.00	.00	.⊚೧	5.14	4.60	5.00
2) RASING ( 2		.00	.00	.00	58.82	6.18	23.27	2.00
3) TEL ( 1		.00	.00	.00	.00	11.11	1.99	1.00
4) ENGINES ( 20		.00	.00	.00	.00	.00	51.17	20.00
5) MSL STRUCT ( 1		.00	.00	6.00	.00	.00	1.07	1.00
27 116 6 6 11.0		.24	3.60	.00	.00	.00	17.89	26.00
<b>— • • • • • • • • • • • • • • • • • • •</b>		.00	.00	.00	.00	.00	.00	45.00
	2.86	.06	.94	.06	1.18	.49	100.00	100.00
TOTAL	2.00	.00	• • •					
1.1 - L RSD ICRM -	TESTING					000	DISCA	רנואשד
FACTOR WI		084	088	089	096	998	.00	1.90
1) LANCH AREA ( 38	00.	.00	.00	.00	.00	.00		.24
TO INST-IMPCT *( 5	5) .00	. <b>0</b> 0	.00	.00	.00	.00	.00	
3) NUCLE EFCT #( 57	7) .00	.00	.00	.00	. <b>o</b> o	9.00	4.60	2.86
TRIAL	.00	.00	.00	.00	.00	5.14	4.60	5.00
			NOU AFE	•				
1.1.1 - L RSD ICRM			NCH AFE	080	097	098	DISCA	CUMMT
FACTOF ₩°		480	ORE	-	.00	.00	,00	1.47
1) JASHATATA #C 7		.00	.00	.00			.00	.44
5) 711 Ü-HŁDNZ ★( 5.	3) ,00	.00	.00	.00	.00	.00	.00	1.90
TOTAL	.00	.00	.00	.00	. <b>0</b> 0	.00	•00	1.70
	T. A (17.11)							
1.0 - L RSD ICRM -			986	980	896	098	DISCI	ГИМИТ
FACTOR W		084	-		100.00	.00	21.06	1.19
1) SECURITY *( 5		.00	.00		.00	15.00	2.21	.82
2) VULNEABLTY #( 4		.00	.00	.00		.00	.00	.00
3) RELT DEBLY *( )	00.00	.00	.00	.00	.00		23.27	2.00
TOTAL	.00	.00	.00	.00	58.82	6.18	. 3 (	
1.3 - L BSD JCBM -	TEL							
FACTOR W		084	088	089	996	<b>09</b> 8	D120.4	CHMMI
	00.00	.00	.00	.00	.00	.00	.00	. 00
	0) .00	.00	.00	.00	.00	.00	.00	.00
	00 .00	.00	.00	.00	.00	.00	.00	.00
J 20 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	•	.00	.00	.00	.00	.00	.00	. 44
	0) .00	.00	.00	.00	.00	.00	.00	.00
2 . ,	-		.00	.00	.00	.00	.00	.11
6) STRUCTURE #C 1		.00	.00	.00	.00	25.00	1.99	.44
7) COMND/CNTL *( 4		.00		.00	.00	11.11	1.99	1.00
TOTAL	.00	.00	.00	.00	.00	( (	***	
1.4 - L BSD ICBM -	ENGINES						B. 2. Co. 4	CHAIT
	IT 080	084	988	989	096	098	DISCH	CUMMT
1) MOTOR CSES ( 3	.00	.00	.00	.00	. <b>o</b> n	.00	.00	6.46
D) NOZZLES ( 1	-	.00	.00	.00	.00	.00	.00	3.23
- : · · · · · · · · · · · · · ·	0) .00	.00	.00	.00	.00	.00	.00	.00
4) THRST VCTR ( 1	-	.00	.00	.00	.00	.00	.00	3.84
5) CHAMRER (	0) .00	.00	.00	.00		.00	.00	.00
	-	.00	.00	.00		.00	51.17	6.46
• •	14.29	.00	.00	.00		.00	51.17	20.00
TOTAL	14.27	• 000	,	.00	• • • •			

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1.4.1	- 1 RSD	ICRM	- ENGINES	- MO	TOR CS	F.S				
	TOR	WT		084	688	689	096	998	DISC1	CUMMT
	CT/DSGN			.00	.00	.00	.00	.00	.00	5.39
2) ANA			.00	.00	.00	.00	.00	.00	.00	.54
3) TES			.00	.00	.00	.00	.00	.00	.00	.54
TOT			.00	.00	.00	.00	.00	.00	.00	6.46
	****						•••	• • •	•••	
			- ENGINES		ZZLES				D T 004	
	TOF	WT		084	088	089	096	09B	DISCI	CUMMI
	T CONE	*( 35		.00	.00	.00	.00	.00	.00	1.13
2) THE		*( 50		.00	.00	.00	.00	.00	.00	1.62
	CH-CASE	*( 15		.00	.00	.00	.00	.00	.00	.48
TOT	AI.		.00	.00	.00	.00	. <b>0</b> 0	.00	.00	3.23
				_						
			- ENGINES	~ F'U						
FAC		WT		084	980	089	096	098	DISCI	CUMMI
1 + CAS		*( 22		.00	.00	<b>. ೧</b> ೧	.00	.00	.0೧	.00
🗇 🔑 GEA		*( 22		.00	.00	.00	.00	.00	.00	.00
	FINES			.00	.00	.00	.00	. <b>o</b> o	. <b>0</b> 0	. <b>0</b> 0
4) IMF	FLLERS	*/ 20	.00	.00	.00	.00	.00	. <b>೧</b> ೧	.00	.00
5) RFA	RINGS	* ( 11	00.	.00	.00	.00	.00	.00	.00	. <b>0</b> 0
101	AI.		.00	.00	.00	.00	.00	. <b>o</b> o	.00	.00
1.4.4	- L BCD	ICEM	- ENGINES	~ TH	IRST VO	TR				
FAC		WT		084	980	089	096	098	DISE1	CUMWT
1) ACT	CATORIC	*( 23	00.	.00	.00	.00	.00	.00	.00	1.28
	OF GAS			.00	.00	.00	.00	.00	.00	1.28
	TROLS			.00	.00	.00	.00	.00	.00	1.28
רחד	ΑI		.00	.00	.00	.00	.00	.00	.00	3.84
1.4.5	~   B7D	TORM	- ENGINES	- CH	IAMBER					
FAC		WT		084	089	089	096	098	DISCI	CUMMIT
1) CAS		♦ (100		.00	.00	.00	.00	.00	.00	.00
2) 000		* ( C		.00	.00	.00	.00	.00	,00	.00
3) INJ		-	00.	.00	.00	.00	.00	.00	.00	.00
U 101		- \	.00	.00	.00	.00	.00	.00	.00	.00
767	***		. (	.00	.00	.00	.00	• (//)	.00	.00
	_   5000	1 CEP	- ENGINES	. P.F.	OFELLA	A) T				
1.4.0 FAC		. 10.59 ⊌1		084	088	089	096	098	B1004	CHIMIT.
	IN DSGN								DISCI	CUMMI
				.00	.00	.00	.00	.00	16.62	1.86
I) ANA		_	.00	.00	.00	.00	.00	.00	.00	.19
	FOSTIN			.00	.00	.00	.00	.00	6.30	. 70
	NG CRNG			.00	.00	.00	.00	.00	28.25	1.86
	ST TERM	*( 29		.00	.00	.00	.00	.00	.00	1.86
דחד	Al		44.21	. <b>0</b> 0	.00	.00	.00	.00	51.17	6.46
_										
			MSL STRUCT							
	TON	WT		084	688	089	096	098	DIZCA	CUMMT
1) DES		*( 30		.00	.00	20.00	.00	.00	1.07	.30
	UFCTING	*( 70		.00	.00	.00	.00	.00	. 00	. 70
TOT	AL		.00	.00	.00	6.00	.00	.00	1.07	1.00

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1.6 - L RSD ICRM - 1	GDNCE , CNTL	004	088	089	096	098	DISCI	CUMMT
FACTOR WT		Θ84	.00	.00	.00	.00	1.14	15.86
1) INERTIAL (61		.40		.00	.00	.00	16.76	2.34
2) STELLAR #( 9		-	40.00	.00	.00	.00	.00	7.80
3) TRMNL HMNG #( 30	) .00	.00	.00	.00	.00	.00	17.89	26.00
TOTAL	.00	.24	3.60	.00	•••	•••	•	
1.6.1 - L BSD ICRM	- GDNCE, CN	ITL - IN	ERTIAL		00/	098	pisci	CUMMT
FACTOR WT	<b>08</b> 0	084	984	989	096	.00	.00	.00
0 )* MT-TMMTZNI ()	.00	.00	.00	.00	.00		.00	5.77
2) GYROS #( 36	.00	.00	.00	.00	.00	.00 .00	.00	4.33
3) ACCLERMINS #( 27	.00	. <b>0</b> 0	.00	.00	.00		1.14	5.77
4) CONTROL ( 36	.00	1.10	.00	.00	.00	.00	.00	<b>∴</b> òċ
	.00	.00	.00	.00	.00	.00	1.14	15.86
TOTAL.	.00	.40	.00	.00	.00	.00	1.14	13.00
1.6.1.4 - L BSD ICE	M - CDNCE	CNTI -	INERTIAL	(	CONTROL			
	080	084	088	089	096	098	DISC1	CUMWI
1 100		1.25	.00	.00	.00	.00	1.14	5.08
	.00	.00	.00	.00	.00	.00	.00	.52
J DOLLAMILE TO		.00	.00	.00	.00	.00	.00	.00
		.00	.00	00	.00	.00	.00	.17
יין וווין ועט שע וויי	3) .00	1.10	.00	.00	.00	.00	1.14	5.77
TOTAL	.00	1.10	.00	• • •	• • •			
					- COMPUT	EE.C		
1.6.1.4.1 - GDNFF,	CNTL - INE	FITTAL	- CONTR		- COREUL	098	DISCI	CHMMI
FACTOR W		0B4	088	989 00.	.00	.00	.00	2.54
1) MEMRY CORE # C 5	0 <b>0.</b> (0	.06	.00		.00	.00	.00	2.28
2) INTEG CRET #( 4)	5) .00	.00	.00	.00		.00	1,14	25
3) PACKAGING #( '	5) .00	25.00	.00	.00	.00	.00	1.14	5 08
TOTAL	.00	1.25	.00	.00	.00	.00	1,17	, ,
1.7 - L RSD JCRM -	RENTRY VO	H				200	pisti	CUMVIT
FACTOR W	1 080 €	084	088	089	096	998 .00	.00	4.09
	9) .00	, <b>o</b> o	.00	.00	.00		.00	2.27
	5) .00	.00	.00	.00	.00	.00		16.36
	6) .00	.00	.00	.00	.00	.00	.00	10.30
4) STRUCTURE #(	4) .00	.00	.00	.00	.00	.00	.00	16.36
5) NOSE-TIF *( 3	6) .00	.00	.00	.00	.00	.00	.00	4.09
6) ARMNG, FZNG #(	9) .00	,00	.00	.00	.00	.00	.00	
TOTAL	.00	.00	.00	.00	.00	.00	.00	45.00
10.1116								

APPENDIX B
TACTICAL AIR WARFARE STRUCTURE AND DATA

### COMPLETED DATA SHEET TUESDAY 8/19/1980 16:55

	N	DDF	WEI	GHT			SYS	STEM	SCO	KF S		
					001	003	903	005	007	008	010	017
1		TAC WAR	(WT:	1007								
1.1	-	PLATFORM	(WT:	33)								
1.1.1	-	ENGINES	(WT:	63)	8	2	8	6	5	5	5	12
1.1.2	-	***************************************	(WT	38)	4	0	20	3	0	10	13	0
1.2	-	WEAPONS	(W)	28)								
1.2.1	-	CASNG/MTRS	(WT	34)								
1.2.1.1	-		(WT	41)	0	0	11	0	0	6	0	0
1.2.1.2	-	ROCKETS	(WT	41)	1	0	30	0	0	0	0	
1.2.1.3	-	BMB/BMBI.TS	(WT	18)	1	Ø	30	0	0	0	O	?
1.2.2	-		(WT	47)								_
1.2.2.1	-		(W)	40)	3	0	10	0	0	C	10	3
1.2.2.2		FUZTNG	(WT	21)	0	0	0	0	0	1	0	0
1.2.2.3		PROPELNTS	(W)	<b>3</b> 8)	0	0	Ç	C	C	0	C	n
1.2.3	-	GUIDANCE	(WT	50)								
1.2.3.1	-		(WT	33)	0	0	0	C	0	0	C	O.
1.2.3.2	-	FASV FLTRN	(WT	11)	0	C	0	0	0	r	0	0
1.2.3.3	-	ELCTF OFTC	(WT	56.	O	U	C	O	0	O	0	0
1.3	-	C3/I	(WT	30								
1.3.1	-	EΨ	(WT	<b>5</b> .)	0	0	0	$\epsilon$	0	0	r	$^{\circ}$
1.3.2	-	NAV	(WT	10								
1.3.2.1	-	RADAF	(WT	42)	0	0	0	0	0	C	0	0
1.3.2.2	-	PASV FLTRN	CWT	33)	0	0	0	0	0	0	0	0
1.3.2.3	-	FLCTF DETC	CHIT	250	0	O	0	0	O	0	G	0
1.3.3	_	COMM	CWT	220	0	0	0	0	0	0	0	0
1.3.4	-	ZUEV	(WT	340								
1.3.4.1	-	RADAF	(WT	481	()	0	(·	0	0	0	O	6
1.3.4.2	-	PASV ELTRN	(WT	24)	0	O	0	G	0	0	0	Ŋ
1.3.4.3	_	ELCTR OFTE	(WT	201	0	0	0	0	0	0	Ç	0
1.3.5	-	TARGETING	(WT	20)								
1.3.5.1	-	RADAF	(W1	29)	0	0	0	0	0	0	O	0
1.3.5.2	-	PASV ELTEN	CWT	147	0	0	0	0	0	0	0	0
		ELCTR OFTC	(WT	57)	0	0	0	0	0	0	0	0

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1 - TA	C WAF									
FACT		ыT	901	002	903	005	907	00R	010	012
1) PLAT	FORM (	33)	6.50	1.25	12.50	4.88	3.13	6.88	8.00	7,50
2) WEAF		28)	.76	.00	9.35	.00	.00	.10	1.88	.96
- 30 <u>C3/I</u>		39)	.00	.00	.00	.00	.00	.00	.00	.00
TOTA	ıl.		2.36	.41	6.72	1.61	1.03	2.30	3.16	2.74
4 4 -	TAC WAR .	_ E:I	ATEREM							
FACT	•	WT	001	602	903	005	007	908	010	012
1) ENGT	•	63)	8.00	2.00	8.00	6.00	5,00	5.00	5 00	12 00
2/ AIRE		38)	4.00	.00	20.00	3.00	.00	10.00	13.00	.00
TOTA		0	6.50	1.25	12.50	4.88	3.13	6.88	8.00	7 50
	-									
1.2 -			FAF'ONS							
FACT		WT	001	0.00	003	, 00°	700 700	008	010 .00	1,19
17 CARN		34:	.59	.04 .00	27.18	_	-	.00		
3 GUIT		20)	1.21		4.(4	.00 00.	.00	.21	4.04	1.21
3 GOTE		. (/)	.76	.00 .00	.00 9.35	.00	.00	.00	.00 1.88	٠,٥٠
1,111	'		. 70	• 00	7.37	.00		.10	1.80	. 46
1.2.1 -	TAC WAR	~	WEAFONS	- c	ASNG/MTI	85				
FACT	OF:	w٦	001	000	003	005	007	809	010	012
1) GUNZ	. * (	41)	.00	.00	11.00	.00	.00	.00	.00	.00
20 MOCK	ETS ≠v	41)	1.00	.00	30.00	.00	.00	.00	.00	2.00
	RMFITS #(	18)	1.00	.00	30.00	.00	.00	. 00	.00	2,06
1611	11		.59	.00	22: 18	.00	.00	. 00	.00	1.18
	TAC WAR	_	WEAFING	_ 7	NTERNAL	_				
FACT		WT	001	000	003	005	007	008	010	017
	DZCONV *C		3.00	.00	10.00	.00	.00	.00	10,00	3.00
20 FUZI		21)	.00	.00	.00	.00	.00	1.00	,00	06
3 \ F:R:0F		38)	.00	.00	.00	.00	.00	.00	.00	.00
TOTA			1.21	.00	4.04	.00	.00	.21	4,04	1.21
				_	-		-			
	TAR WAR			_	HIDANCE					
FACT		WT.	001	00.	063	00%	007	908	010	010
1 FATO		33)	.00	.00	.00	.00	.00	.00	.00	.00
	ELTEN *C		.00	.00	.00	.00	.00	.00	.00	.00
57 FLUTA	'F' OFTC ★(	201	.00	.00 .00	.00 .00	.00 .00	.00	.00	.00	. <b>0</b> 0 . <b>0</b> 0
1 (11)	••		.00	.00	.00	.00	.00	.00	.00	.00
1.3 -		- C								
FACT		WT	001	002	003	005	007	908	010	012
1) EW		9)	.00	.00	.00	.00	.00	.00	.00	.00
I NAV		10)	.00	.00	.00	.00	.00	.00	.on	.00
3) COMM		22)	.00	.00	.00	.00	.00	.00	.00	.00
4) 5UFV		39)	.00	.00	.00	.00	.00	.00	.00	.00
5) TARG		20)	.00	.00	.00	.00	.00	.00	.06	.00
1016	D.		.00	.00	.00	.00	.00	.00	.00	. 0 C

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1.3	2 - TAC WAR	~	C3/1	- NA	٧					
	FACTOR	WT	001	002	003	005	007	908	010	012
1)		42)	.00	.00	.00	.00	.00	.00	.00	.00
	PASV FLTRN #(	33)	.00	.00	.00	.00	.00	.00	.00	.00
	ELCTR OFTC *(		.00	.00	.00	.00	.00	.00	.00	.00
•	TOTAL		.00	.00	.00	.00	.00	.00	.00	.00
1.3	.4 - TAC WAR	_	C3/I	~ <b>S</b> U	RV					
	FACTOR	WT	001	002	003	005	007	900	610	012
1)	RADAR +C	48)	.00	.00	.00	.00	.00	. <b>0</b> 0	.00	.00
-	PASV FLTRN # (	24)	.00	.00	.00	. 00	.00	.00	.00	.00
_	ELCTR OFTC *C		.00	.00	.00	.00	.00	.00	.00	.00
•	TOTAL.		.00	.00	.00	.00	.00	.00	<b>.0</b> 0	.00
1.3	.5 - TAC WAF	~	C3/1	- TA	RGETING					
	FACTOR	WT	001	002	003	005	007	908	010	017
1)	RADAR +C	29)	.00	. <b>೧</b> ೧	.00	· C (	.00	.00	. <b>0</b> 0	.00
-	FATV FLTRN .	14.	.00	.00	.00	.00	.00	.00	.00	. 00
•	ELCTE DETC **		.06	.00	.00	. <b>೧</b> ೧	.00	.00	.00	.00
J,	TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

### COMPLETED DATA SHEET TUESDAY 8/19/1980 17:23

NODE		WEI	GHT			SYS	STEM	SCOR	KES		
				016	017	022	024	025	026	028	030
	AC WAR	747	100)								
	ATFORM	(WT	33)								
-	GINES	(WT	63)	2	6	0	0	10	0	0	0
	RERAMES	(WT	38)	5	4	2	ŏ	10	Ö	ŏ	õ
	APONS	(WT	28)	-	•	_	•		•	•	•
	SNG/MTRS	(WT	34)								
	240	(WT	41)	11	2	11	0	58	2	0	0
·	CKETS	(WT	41)	3	10	1	ŏ	ō	ō	ō	5
	F/RMFLTS	CWT	18)	3	10	1	Ö	0	0	0	5
	TERNALS	(WT	47)								
1.2.7.1 - WA	RHD/CONV	(WT	40)	0	0	R	0	0	C	0	0
1.2.2.2 - FU	IZING	(WT	21)	1	0	1	3	0	0	0	0
1.2.2.3 - PR	OPELNTS	(WT	38)	0	0	0	0	0	0	0	C
1.2.3 - GU	IDANCE	(WT	20)								
1.2.3.1 - KA	TAGE	(WT	33)	0	0	0	17	0	0	O	O.
1.2.3.2 - PA	SV ELTEN	(WT	11)	0	0	0	17	0	0	0	0
1.2.3.3 - FL	OTR OFTO.	(WT	561	0	C	C	0	0	C	3.9	0
1.3 - 03	3.11	CWT	39								
1.3.1 - EW	1	(WT	9)	0	0	O	15	0	0	C	0
1.3.2 - NA	٩V	(WT	10)								
1.3.2.1 - RA		(WT	42)	0	0	0	17	0	0	0	Ō
1.3.2.2 - PA		(WT	33)	0	0	0	17	0	0	0	0
1.3.2.3 - FL	OTE PETC	(WT	25)	0	$^{\circ}$	0	0	0	0	39	0
1.3.3 - 00		CWT	223	0	0	0	19	0	O	0	0
1.3.4 - 51	lF∀	(WT	301								
1.3.4.1 - F6	-	(WT	48	0	0	Ç	17	0	0	0	0
	SV ELTEN	(WT	24)	0	0	0	17	0	0	0	0
	OTE OFTO	(WT	29)	0	0	0	0	0	0	39	0
	ARGETING	(WT	20)								
1.3.5.1 - RA		(WT	291	0	0	0	17	0	0	0	0
	ASV ELTEN	(WT	14)	0	0	0	17	0	0	٥	0
1.3.5.3 - EL	OTR OFFI	(WT	57)	0	0	0	0	0	0	39	0

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١.	- TAC WAR									
•	FACTOR	WT	016	017	022	024	025	026	028	030
1)		33)	3.13	5.25	.75	.00	10.00	.00	.00	.00
		28)	2.22	2.26	3.33	1.78	R.04	.28	4.32	.99
		39)	.00	.00	.00	13.04	.00	. <b>6</b> 0	9.70	.00
.,,	TOTAL.	377	1.65	2.36	1.17	5.61	5.53	.08	5.01	.27
	IUIHI.		1.65	2.30	1.11	2.61	٠. ا	. 00	27 . (1)	
4 4	- TAC WAR	_ E·I	ATEREM							
' • '	FACTOR		016	017	027	024	025	026	028	030
	1.44. 1.021.							.00	.00	.00
		63)	2.00	6.00	.00	.00	10.00			
27	AIRERAMES *(	38)		4.00	2.60	.00	10.00	.00	.00	.00
	TOTAL		3.13	5.25	.75	.00	10.00	.00	.00	. <b>೧</b> ೧
4	- TAC WAF	- 61	APORT							
	FACTOR	wi Ti	016	017	027	024	025	026	028	036
• •		34	6.29	6.71	5.12	.00	23.88	.82	.00	2,94
		471	. 71	.00	3.45	.64	.00	.00	.00	.00
		20 )						.00	21.84	.00
		200	.06	.00	.00	7.48	.00			
	TOTAL		2.21	2.20	3.33	1.78	8.04	.28	4.30	.99
,	. TAC WAL	_	HE AFON?	- c	ASNG MT	<b>K</b> + T				
, .	.i ia.w≃. FACTOE	шï	(116	017	000	024	075	026	028	030
		41)	11.00		11.00	.00	58.00	2.00	.00	.00
	FOULTERS *C			2.00	1.00	.00	.00	.00	.00	5.00
• .	RMI RMILIC **	18;	3.00		1.00	.00	.00	.00	.00	5.00
	101+1		6.78	6.71	5.12	.00	23.88	.80	.00	?.94
	TAC WAR		UEARONA	. +	NTEFNAL	c				
	IAC WAR. FACTOR	w T		017	050 VIEWN47	004	0.05	026	0.00	4.71
		**					025		ሁኔት ተ	030
	WARHI IONV ★C		.00	.00	8.00	00	.00	.00	.04	.00
	Fig. 166		1.00		1.00	3.00	.00	.00	.00	.00
٠, ,	PROPERNIC *C	38	.00	.00		.00	.00	.00	.00	. 00
	TOTAL		.21	.00	3.45	.64	.00	.00	.00	.00
	7.50 1145		115 A 5: O 11 S	_						
١	RACIONE	ωT			HIDANCE		0.25	024	0.20	676
			016	017	055	024	025	024	0.1B	030
	RADAR *:	-	.01	.00	.00	17.00	.00	.00	.00	. 07
	FASV FLIFN +C		.00	.00	.00	17.00	.00	.00	.00	.00
3.1	ELCTR OFTC *C	567	.00	.00	.00	.00	.00	.00	39.00	.00
	TOTAL		.00	.00	.00	7.48	.00	.00	21.84	.00
	TAG HAT	_								
3.5	- TAC WAR			A			A 44		A. C. C.	
	FACTOR	WT.	016	017	023	024	052	026	0.2B	030
		9)	.00	.00	.00	15.00	.00	.00	.00	.06
		10)	.00	.00	.00	12.75	.00	.00	9.75	.00
		22)	. <b>o</b> o	.00	.00	19.00	.00	.00	.00	.00
		39)	.00	.00	.00	12.14	.00	.00	11.14	.00
Ε.		20)	.00	.00	.00	7.29	.00	.0೧	22.29	. 00
	TOTAL		.00	.00	.00	13.04	.00	.00	9.76	.00

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1.3.2 - TAC WAR	_	C3/I	- NAV						
FACTOR	ыT	016	017	022	024	025	026	028	030
	42)	.00	.00	.00	17.00	.00	.00	.00	.00
2) PASV ELTRN *(		.00	.00	.00	17,00	.00	.00	. <b>0</b> 0	.00
5) PHOA ETIME 40	25)	.00	.00	.00	.00	.00	.00	<b>39.0</b> 0	.00
3) ELCTR DPTC *(	231	.00	.00	.00	12.75	.00	.00	9.75	.00
TOTAL		.00	.00		12112	•			
1.3,4 - TAC WAR	_	- C3/I - SURV						450	07.
FACTOR	WT	016	017	022	024	0.25	いこや	028	いてい
	48)	.00	.00	.00	17.00	.00	.00	.00	.00
2) PASV ELTRN *(			.00	.00	17.00	.00	.00	. 00	. 00
T) PASA FRING AV	20/		.06	.00	.00	.00	.00	39.00	. <b>೧</b> ೧
3) ELCTH OFTC *(	. 7	.00	.00	.00	12,14	,00	.00	11.14	.00
TOTAL		.00	• • • •	.00	12311	•			
1.3.5 - TAC WAR	-	C3/1	- TA	ARGETIN					030
FACTOR	W٦	016	017	022	024	021	026	028	
1) RADAR *(	29,	.00	.00	.00	17.00	. <b>0</b> 0	.00	. 0 ^	.00
2) PASV ELTEN *C			.00	.00	17,00	.00	.00	.00	.00
			.00	.00	.00	.00	.00	39.00	.00
3) ELCTR OFTC *(	2 ( )	.00	.00	.00	7.29	.00	.00	22.29	, <b>o</b> o
TOTAL		.00		. ( , ,		•			

#### COMPLETED DATA SHEET TUESDAY 8/19/1980 17:36

NODE		WEIGHT		SYSTEM SCORES							
				031	032	033	034	035	036	038	039
1	- TAC WAF		100)								
-	- PLATFORM	(WT	33)								
	- ENGINES	(WT	63)	2	0	7	7	1	4	0	0
1.1.2	- AIRFRAMES	(WT	38)	6	6	5.	Ó	ò	0	ò	ő
1.2	- WEAFONS	(WT	28)	•		-	•	·	· · ·	·	V
1.2.1	- CASNG/MTRS	(WT	34)								
	- GUNE	(WT	41)	0	0	2	0	0	0	0	C
	- ROCKETS	(WT	41)	ě	Ô	0	ő	Ö	44	Ô	Ô
	- BMB/BMBLTS	(WT	18)	ő	ŏ	ŏ	ŏ	ò	44	Ö	ő
	- INTERNALS	(WT	47)		•	•		•		•	•
	VMODICTHARW -	CWT	40+	0	C	C	G	0	0	C	0
	- FUZING	CUT	217	0	0	o	0	5	Ô	Ô	0
	- FROFFLATS	(WT	38	$\circ$	0	C	C	0	0	C	0
	- GUIDANCE	(WT	20 -								
1.2.3.1	- RADAE	(WT	₹₹.	0	0	0	0	C	0	€,	P
	- PASV FLTRN	(WT	1.1	0	0	C	0	0	0	G	Ç.
1.2.3.3	- ELCTE OFTO	CWT	561	Λ	Ç	O	Ů.	0	· ·	0	C
1.3	- C3/I	(WT	39								
1.3.1	- EW	< ⊌1	9	C	0	C	C	Ċ	C	<b>F</b> ,	P
1.3.7	- NAV	(WT	10.								
1.3.2.1	- RADAF	CWT	421	0	0	· ·	Ċ.	0	0	E,	B
1.3.2.2	- FASV ELTRN	(W?	331	0	Ċ	0	0	0	0	0	8
1.3.2.3	- ELCTF OFTC	CWT	25	0	C	e	C	0	0	0	0
1.3.3	- COMM	(WT	27 (	O	0	O	C.	0	0	5	9
1.3.4	- SURV	(WT	39.								
1.3.4.1	- FADAF	CWT	48)	0	0	0	0	0	0	5	B
1.3.4.2	- FASV ELTAN	(W)	24)	0	0	0	0	0	0	G	В
	- ELCTR OFTC	(WT	29)	0	0	C	0	0	C	C	0
	- TARGETING	(WT	201								
	- RADAR	(WT	293	0	0	0	0	0	0	•	R
	- PASV FLTRN	(WT	14)	0	0	0	0	0	0	0	8
1.3.5.3	- FLCTF OFTC	(WT	57)	0	0	0	0	0	0	0	0

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4 .	- TAC WAR									
•	FACTOR	<b>u</b> T	031	032	033	034	035	936	938	639
1)		33)	3.50	2.25	2.00	4.38	.63	2.50	.60	.00
		28)	.00	.00	.28	.00	.50	8.71	.33	.70
3)	C3/I (	39)	.00	.00	.00	.00	.00	.00	2.99	6.24
	TOTAL		1.15	.74	.74	1.44	.34	3.24	1.26	2.64
			.====							
1.1	- TAC WAR				077	074	675	07.	038	039
4.5	FACTOR *(	WT	031 2.00	032 .00	550 2.00	034 7.00	1.00	036 4.00	.00	.00
		63) 38)		6.00	2.00	.00	.00	.00	.00	.00
• '	TOTAL	307	3.50	2.25	2.00		.63	2.50	.00	.00
	• • • • • • • • • • • • • • • • • • • •		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,							•
	- TAI WAF	-								
	FACTOR	WT	031	030	いろぶ	034	035		038	039
		34	.00	.06 .06	. <u>8</u> .7	,06 ,00	.00		.00	. <b>0</b> 0 . <b>0</b> 0
	INTERNALS ( GUIDANCE (	47)		.06	. 00 . 00	.00	1.0A 00		. ሰባ 1 . ሉ <sup>ሚ</sup>	3,50
<i>3'</i>	TOTAL		.06	.00		, 600	-	8 71	.33	.70
	1414111		• • • •			• • • • • • • • • • • • • • • • • • • •	• • • • •	6 11		. "
1.2	.1 - TAR WAR				ты зига					
	FACTOR		031	037	633	034	035		038	039
	- '	41 .		.00		.00	.00	.00	.00	.00
	· · ·	41)	•	.00	.00	.00	.00	44,00	.00	.00
5 1	RMRZRMBLTS +C TOTA:	181	.00 00.	.00	0 <b>0.</b> 29 <b>.</b>	.00	00. 00.	44,00 25,88	.00	.00
	[0] 60		• (***)	. (11)		.("'	·OC	. T. HH	.00	.00
1.2	.2 ~ TAC WAF				NTEFNAL'					
	FACTOR				033		032	036	038	039
	WARHD/CONV +(			.00	.00	-00	.00	.00	.00	.00
	FUZING *C		.00	.00	.00	.00	5.00	.00	.00	. <b>೧</b> ೧ . <b>೧</b> ೧
31	FROFELNTS *C	381	.00	.00	00. 00.	.00 .00	.00 1.06	00. 00.	.00 .00	.00
	TUTAL		• (10)	.00	.00	. (11)	1.05	`(11.1	, 00	,00
1.2	.3 - TAC WAR				IDANCE					
	FACTOR			632		034	03*	036		036
		33)		.00	.00	.00	.00	.00	5.00	8.00
	FASV ELTRN #(		.00	.00		.00	.00	.00	.00	8.00
3)	ELCTR DETC +(	56)	.00	.00	.00	.06	.00	.00	.00	.00
	TOTAL		.00	.00	.00	.00	.00	.00	1.65	3.52
1.3	~ TAC WAR									
4 .	FACTOR	WT	031	032	033	034	035	036	038	039
		9)	.00	.00	.00	.00	.00	.00	5.00	8.00
_		10)	.00	.00	.00	.00	.00	.00	2.05	6.00
		22) 39)	.00 .00	.00	.00 .00	.ec .ec	.00	.00	5.00 2.38	9.00 5.71
	TARGETING (		.00	.00	.00	.00	.00	.00 .00	1.43	3.43
,	TOTAL		.00	.00	.00	.00	.00	.00	2.99	6.74
	.9.80		• • •	. • • • •	.00	• • • •	.00		£ . 7 7	0.77

#### CAS/RI-3 TUESDAY 8/19/1980 17.36

1.3.2 - TAC WAF	-	C3/I	- NA	V					
FACTOR	WT	031	032	033	034	035	036	03R	039
	42)	.00	.00	.00	.00	.00	.00	5.00	8.00
2) PASV ELTRN #(	33)	.00	.00	.00	.00	.00	. 00	.00	8.00
3) ELCTR OFTC #(		.00	.00	.00	.00	. <b>0</b> 0	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	. 00	2.08	6.00
1.3.4 - TAC WAR	_	C3/I	- Su	IR:V					
FACTOR	ωT	031	032	033	034	635	036	036	979
	48)	.00	.00	.00	.00	.00	.07	5.00	S. 0
20 FASV FLTRN +(		.00	.00	.00	.00	.00	.01	. 60	F . O .
3) FLOTE OFTC #C	-	.00	.oo	.00	<b>.0</b> 0	0.0	.00	, <b>0</b> c	. 6 ∩
TOTAL	•	.00	.00	.00	.00	.00	. Or	1.35	• .71
1.3.5 - TAC WAR	_	C3-1	- TA	FIFTINL	,				
FACTOR	UТ	031	032	033	034	031	034	630	036
	29 (	.00	.00	.00	.00	.0.	. 00	5.00	8.0r
DI FACY BUTEN +C	14,	.00	.00	.00	.00	.00	.00	.00	P.00
3 FLOTE OFTO *C			.06	0.	.00	.06	.00	. 0	. <b>0</b> o
16141		0.0	.00	.00	.00	.00	.00	1.47	7.47

## COMPLETED DATA SHEET TUESDAY 8/19/1980 17 49

NODE	WEIGHT			SY	STEM	SCO	RF S		
		040	041	042	043	044	045	046	047
1 - TAC WAF	(WT 100)								
1.1 - PLATFORM	(WT 33)								
1.1.1 - ENGINES	(WT. 63)	0	3	0	0	0	0	0	0
1.1.2 - AJRFRAMES	(WT 38)	0	2	0	0	0	0	0	0
1.0 - WEAPONS	(WT 28)								
1.2.1 - CASNG/MTRS	(WT 34)								
1.2.1.1 - GUNS	(WT 41)	6	0	0	()	C	C	0	O
1,2,1,2 - ROCKETS	(WT 41)		0	0	0	0	0	0	0
-1,2,1,3 - RMR/RMHLTS			0	0	C	0	0	Ç	0
1.0.0 - INTERNALS	(WT 47)		_	_	_	_		_	_
1.0.2.1 - WARHD/CONV		-	0	Ç	0	3	10	0	0
1.0.0.0 - FUZING	(WT 21)		0	0	0	0	0	0	٥
1.0.0.3 - PROPERNIO	(WT 3E		C	0	C	C	0	n	0
1.2.3 - GUIDANCE	(Mil Lo		_		_	_	_	_	
1.2.3.1 - FADAF	(WT 33)	-		6	3	0	0	Ç	1
1.2.3.2 - PASV ELTEN	(WT 11)	_	5	6	6	0	0	0	1
1,2,3,3 - ELCTE OFTO	(WT 56)		0	15	0	C	0	4	;
1.3 - C3-I	(MI 35)		_		_	_		_	_
1.3.1 - FW	(ଜୀ ବ		4	Ç,	5	Ç	$\epsilon$	0	1
1,3,7 - NAV	(WT 10				_	_		_	
1.3.2.1 - FADAF	(WT 42			ť	3	0	0	Ü	1
1.3.2.2 - PASV ELTRN		_			6	0	0	0	1
- 1.3.2.3 - ELOTE OFTO	(W1 25)				Ċ	0	Ü	4	
1.3.3 - COMM	CWT 220		5	0	6	0	0	0	()
1.3.4 - SURV	(W1 35)		_		_	_		_	
1.3.4.1 - RADAR	(WT 48)	_		6	3	0	Ç	0	1
1.3.4.2 - FASV FLTRN		_		_		0	0	0	1
1.3.4.3 - ELCTR OFTE			0	15	0	0	0	4	5
1.3.5 - TARGETING	(WT 201		-		_	_	_		
1.3.5.1 - RADAR	(WT 29)			6		0	0	Ç	1
1.3.5.2 - PASV ELTRN		_		6	6	0	0	0	1
1.3.5.3 - ELOTE OFTO	(WT 57)	0	0	15	0	ი	0	4	5

## CAS/BI-4 TUESDAY 8/19/1980 17:49

1 - TAC WAF FACTOR WT	040 041	042	043	044	045	046	047
1) PLATFORM ( 33)	.00 2.63	.00	.00	.00	.00	.00	. 💁 ଚ
2) WEAFONS ( 28)	.33 .44	2.19	.33	.56	1.88	.44	.31
3) C3/I (39)	2.90 3.67	6.89	3.57	.00	.00	. <b>9</b> 9	1.02
TOTAL	1.23 2.43	3.31	1.49	.16	.52	.51	.49
TOTAL	,,,,,						
1.1 - TAC WAR - FLA			A . <del>-</del>		045	046	047
FACTOR WT	040 041		043	044		.00	.00
1) ENGINES *( 63)	.00 3.00		.00	.00	.00	.00	.00
2) AIRFRAMES *( 38)	.00 2.00	.00	.00	.00	.00	-	.00
TOTAL	.00 2.63	.00	.00	.00	.00	.00	.00
1.2 - TAC WAF - WEA	2 KIN 5						
FACTOR WT	040 041	042	04%	044	045	047	047
	.00 .00		.00	.00	.00	.00	.00
	.00 .00	.00	.00	1.21	4.04	.00	. <b>0</b> 0
2) INTERNALS ( 47)			1.65	.00	.00	2.24	1.56
3) GUIDANCE ( 20)			.33	.56	1.88	.44	.31
TOTAL	.33 .44	2.17	• 0.2	0	1.00	• • •	
1.2.1 - TAC WAR - W	JEAFONS -	CASNG 'MTH	· · ·				
FACTOR WT	040 041	047	043	044	045	046	047
1) GUNS #( 41)	.00 .00	.00	.00	.00	.00	.00	.00
2) ROCKETS *( 41)	.00 .00	00.	.00	.00	.00	.00	. <b>0</b> 0
3) BMB/BMBLTS *( 18)	.00 .00		.00	.00	.00	. <b>0</b> 0	.00
	.00 .00		.00	.00	.00	.00	.00
TOTAL	.00	•					
1.2.2 - TAC WAR - 4		INTERNAL			A 45		047
FACTOR WI	040 041		043	044	045	046	
1) WARHD/CONV *( 40)	.00 .00	.00	.00	3.00	10.00	.00	.00
2) FUZING #( 21)	.00 .00	00.	.00	.00	.00	.00	.00
3) PROFELNTS *( 38)	.00 .00	.00	.00	.•ი	.•ი	.00	.00
TOTAL.	.00 .00	00.	.00	1.21	4.04	.00	.00
1.2.3 - TAC WAR	HEADONS -	GUIDANCE					
	040 04		043	044	045	044	047
	3.00 5.00		3.00	.00	.00	. 00	1.00
• • • • • • • • • • • • • • • • • • • •	•		6.00	.00	.00	.00	1.00
2) FASV ELTRN #( 11)			.00	.00	.00	4.00	2.00
3) ELCTR OFTC #( 56)	.00 .00			.00	.00	2.24	1.56
TOTAL	1.65 2.2	0 11.04	1.65	.00	.00	****	7.50
1.3 - TAC WAR - C3	/I						
FACTOR WT	040 04	1 042	043	044	045	046	047
1) EW #( 9)	5.00 4.0	0 6.00	5.00	.00	.00	.00	1.00
2) NAV (10)	3.25 3.7		3.25	.00	.00	1.00	1.25
3) COMM #( 22)	3.00 5.0		6.00	.00	.00	.00	.00
4) SURV (39)	2.86 3.5	7 8.57	2.86	.00	.00	1.14	1.29
5) TARGETING ( 20)	1.71 2.1		1.71	.00	. <b>o</b> o	2.29	1.57
TOTAL	2.90 3.6		3.57	.00	.00	.99	1.02

#### CAS/BI-4 TUESDAY 8/19/1989 17:49

1.3	.2 - TAC WAR	-	C3/I	- N	AV					
	FACTOR	WT	040	041	042	043	044	045	046	047
1)	RADAR #(	42)	3.00	5.00	6.00	3.00	.00	.00	.00	1.00
2)	PASV ELTRN #(	33)	6.00	5.00	6.00	6.00	.00	.00	.00	1.00
3)	ELCTR OPTC *(	25)	.00	.00	15.00	.00	.00	.00	4.00	2.00
	TOTAL		3.25	3.75	8.25	3.25	.00	.00	1.00	1.25
1.3	.4 - TAC WAR	_	C3/I	- S	URV					
		WT	040	041	042	043	044	045	046	047
1)	RADAR *(	48	3.00	5.00	6.00	3.00	.00	.00	.00	1.00
2)	PASV FLTRN */	24)	6.00	5.00	6.00	6.00	.00	.00	. <b>0</b> 0	1.00
3)	ELCTR OPTC ★C	20.	.00	.00	15.00	.00	. <b>0</b> 0	.00	4.00	2.00
	TOTAL		2.86	3.57	8.57	2.86	.06	.00	1.14	1.29
1.3	.5 - TAC WAR	_	C3/T	<b>- T</b>	ARGETTN	5				
	FACTOR	LIT	040	041	042	043	044	045	046	047
1)	RADAR # (	50.	3.00	5.00	6.00	3.00	.00	.00	.00	1.00
2)	PASV ELTRN + (	14	6.00	5.00	6.00	6.00	.00	.00	.00	1,00
33	ELCTF OFTC *C	57)	.00	.00	15.00	.00	.00	.00	4.00	2.0
	TOTAL		1.71	2.14	11,14	1.71	00	.00	2.29	1.

#### COMPLETED DATA SHEET TUESDAY 8/19/1980 17-58

NODE	WEIGHT					M SCORES				
			048	049	<b>05</b> 0	051	098	053	054	055
1 - TAC WAF	707	100)								
1.1 - PLATFORM	(WT	33)								
1.1.1 - ENGINES	(WT	63)	0	0	0	8	0	0	0	0
1.1.2 - AIRFRAMES	(UT	38)	Ö	ő	ő	0	1	ő	Ö	õ
1.2 - WEAPONS	(UT	28)	·	v	·	V	•	·	· ·	·
1.2.1 - CASNG/MTRS	(UT	34)								
1.2.1.1 - GUNS	(61	41)	0	0	0	2	0	0	0	0
1.2.1.2 - ROCKETS	(UT	41)	ő	õ	ó	7	ò	Ô	ò	ö
1.2.1.3 - RMF/FMHITS	(พา	18)	ŏ	ő	ő	5	ő	ő	ő	õ
1.2.2 - INTERNALS	CUT	47)	•	•	•	-	•	•	•	•
1.2.2.1 - WARHD/CONV	CUT	40)	0	0	0	12	C	10	0	0
1.2.2.2 - FUZING	(WT	21)	8	0	0	0	0	0	35	35
1.2.2.3 - PROPELNTS	(WT	38)	0	0	0	C	Ô	0	0	C
1.2.3 - GUIDANCE	CUT	20)								
1.2.3.1 - RADAR	CWT	337	0	:	4	0	C	Ć.	11	19
1.2.3.2 - PASV ELTEN	( WT	11	0	2	4	Ó	C	Ó	1.1	19
1.2.3.3 - ELCTE OFTC	CUT	500	0	(·	9	Ċ	0	0	0	G
1.3 - 83/1	CWT	39								
1.3.1 - EW	(WT	<b>C</b> 1	e	:	3	0	0	0	10	17
1.3.2 - NAV	(WT	10)								
1.3.2.1 - RADAR	CWT	42)	0	7.	4	0	C	0	11	19
1.3.2.2 - FASV FLTRN	(WT	33)	O	2	4	0	C-	0	1 1	19
1.3.2.3 - TLOTE OFTO	(พา	25)	G	O	9	0	C	0	0	C
1.3.3 - COMM	(WT	227	Ç	0	Ó	C.	0	0	12	20
1.3.4 - SUE	(WT	₹\$→								
1.3.4.1 - RADAF	(WT	48 (	0	2	4	C	0	0	1.1	18
1.3.4.2 - FASV ELTRN	(WT	24	6	₽.	4	0	O	0	11	15
1.3.4.3 - FLOTE OFTO	(WT	250	0	0	9	0	0	0	0	0
1.3.5 - TARGETING	(WT	20)								
1.3.5.1 - RADAR	CWT	291	0	?	4	0	0	0	11	19
1.3.5.2 - PASV ELTRN	CMIT	14)	0	2	4	0	0	0	1 1	19
1.3.5.3 - ELCTR OFTC	(WT	57)	0	0	9	O	O	0	0	O

CAS/BI-5 TUESDAY 8/19/1980 17:58

1 -	TAC WAR									
	FACTOR	WT	048	049	050	051	098	053	054	055
		33)	.00	.00	.00	5.00	.38	.00	.00	.00
		28)	.79	.17	1.35	2.93	.00	1.88	4.42	5.12
		39)	.00	1.05	4.26	.00	.00	.00	8.40	14.37
	TOTAL	377	.22	.46	2.04	2.46	.12	.52	4.53	7.04
	(UTHI		* 2 2	. 40	2.04	≠. <b>~</b> €	. 12	.52	•	1.04
4 . 4	- TAC WAR	- F1 i	ATFORM							
	FACTOR	WT	048	049	050	051	999	053	054	055
	_	63)	.00	.00	.00	8.00	.00	.00	.00	.00
		38)	.00	.00	.00	.00	1.00	.00	.00	.00
	TOTAL	30,	.00	.00	.00	5.00	.38	.00	.00	.00
	TOTAL		.00	.00	.00	3.00	• 20	.00	• 017	
1.2	- TAC WAR	- WE	AF'ONE							
1	FACTOF:	WT	048	045	050	051	የዋን	053	054	055
1)	CASNG/MTRS (	34)	.00	.00	.00	2.00	.00	.00	.00	.00
		47)	1.70	.00	.00	4,85	.00	4.04	7.45	7.45
_		200	.00	.83	6.80	.00	.00	.00	4.84	8.36
_	TOTAL	• • •	.79	17	1.35	2.63	.00	1,88	4.42	5.12
	10111.		• •	• • •	,		• • • • • • • • • • • • • • • • • • • •		- · · ·	./
1.2.	1 - TAC WAR	- 1	WEAF (IN "	- C4	ASNG/MT	R.S				
	FACTOF	WT	048	044	050	054	666	053	054	055
1)	GUNS */	41)	.00	.00	.00	2.00	. <b>೧</b> ೧	. <b>೧</b> ೧	.00	.00
2)	ROCKETS *C	41)	.00	.00	.00	2.00	.00	.00	.00	.00
	D# 2TJAMANAMA		.00	.00	.00	2.00	.00	.00	.00	.00
	TOTAL	* * * * *	.00	.00	.00	2.00	.00	.00	.00	.00
	• • • • • • • • • • • • • • • • • • • •		• • •	• `	• • •	•••	•••	• • •	• • •	• • •
1.2.	2 - TAC WAR	- 1			NTERNAL					
1	FACTOR	WT	048	()49	050	051	0 ዎ ନ	053	054	05%
1) (	WARHD/CONV ★ C	40)	.00	.00	.00	12.00	.00	10.00	.00	.00
2)	FUZING +C	21)	8.00	.00	.00	.00	.00	.00	35.00	35.00
3)	PROPELNTS *C	38)	.06	.00	.00	.00	.00	.00	.00	.00
	TOTAL		1.70	.00	.00	4.85	.00	4.04	7.4%	7.45
								-		
1.2.	3 - TAC WAR	-	ME AF (IN)	- GI	IIDANCE					
	FACTOR	WT	048	045	050	051	<b>0</b> 98	053	054	055
1)	RADAR *(	33)	.00	2.00	4.00	.00	.00	.00	11.00	19.00
2)	PASV ELTRN *(	11)	.00	2.00	4.00	.00	.00	.00	11.00	19.00
3)	ELCTR OFTC *C	561	.00	.00	9.00	.00	.00	.00	.00	.00
	TOTAL		.00	.88	6.80	.00	.00	.00	4.R4	8.36
	<b>-</b>									
	~ TAC WAR	~_C3								
	FACTOF	WT	048	049	050	051	098	053	054	055
1)	•	9)	.00	2.00	3.00	.00	.00	.00	10.00	17.00
2)		10)	.00	1.50	5.25	.00	.00	.00	8.25	14.25
		<b>2</b> 2 )	.00	.00	.00	.00	.00	. <b>0</b> 0	12.00	20.00
		39)	.00	1.43	5.43	.00	.00	.00	7.86	13.57
		20)	. <b>o</b> o	.86	6.86	.00	.0೧	.00	4.71	8.14
	TOTAL		.00	1.05	4.26	.00	.00	.00	8.40	14.37

#### CAS/BI-5 TUESDAY 8/19/1986 17:58

1.3	.2 - TAC WAR	-	C3/I	- N	٩V					
	FACTOR	WT	048	049	050	051	<b>098</b>	053	054	05%
1)	RADAR #(	42)	.00	2.00	4.00	.00	.00	.00	11.00	19.00
2)	FASV FLTRN *(	33)	.00	2.00	4.00	.00	.00	.00	11.00	19.00
3)	FLOTR OPTO *C	25)	.00	.00	9.00	.00	.00	.00	.00	.00
	TOTAL		.00	1.50	5.25	.00	.00	.00	8.25	14 25
1 7	.4 - TAC WAR	_	C3/I	- 51	IR V					
,	FACTOR	WT	048	049	<b>05</b> 0	051	ዕዋክ	053	054	055
10	RATIAE +C		.00	2.00	4.00	,00	.00	.00	11.00	19 00
	PATY ELTRN #C		.00	2.00	4.00	.00	.00	.00	11.00	19.00
3,	ELCTR DETC *C	29)	.00	.00	9.00	.00	· <b>೧</b> ೧	.00	<b>ຼດ</b> ດ	. <b>೧</b> ೧
	IATOT		.00	1.43	5.43	.00	.00	.00	7.86	13.57
1.3	C - TAC WAR	_	C3 1	- 76	ARGETING					
	10 F 0 A 1	WΤ	0.45	045	050	05.1	Oes	053	054	Origin
1.3	RADAL #1	25	.00	2.00	4.00	.00	.00	.00	11.00	19.00
	FACY ELIRN **	14.	.06	2.06	4.00	.00	.00	. <b>೧</b> ೧	11,00	19.00
٦,	FLOTE DETC **	571	.00	.00	9.00	. 00	.04	.00	0	.00
	TOTAL		.00	.86	6.60	.00	.66	.00	4.71	8.14

#### COMPLETED DATA SHEET TUESDAY 8/19/1980 18:19

	NODE	WEI	GHT			SY	STEM	SCOL	YE Z		
				999	<del>0</del> 57	962	063	065	072	075	082
1	- TAC WAR	(WT	100)								
1.1	- PLATFORM	(WT	<b>3</b> 3)								
1.1.1	- ENGINES	(WT	63)	0	0	0	0	0	6	0	0
1.1.2	- AIRFRAMES	(WT	<b>3</b> 8)	0	O	5	0	0	14	0	0
1.2	- WEAFONS	(WT	28)								
1.2.1	- CASNG/MTRS	(WT	34)								
1.2.1.1	- GUNS	(WT	41)	0	0	0	0	0	0	0	0
1.2.1.2	- ROCKETS	(WT	41)	0	0	0	0	0	0	0	Θ
1.2.1.3	- BME/EMELTS	(WT	18)	0	0	0	C	0	0	0	0
1.2.2	- INTERNALS	(WT	47)								
1.2.2.1	- WARHD/CONV	(WT	40)	24	Ħ	C	C	0	0	0	C
1.2.2.2	- FUZING	(WT	21)	0	0	0	0	12	0	0	0
1.2.2.3	- PROFELNTS	(WT	387	30	C	C	O	0	0	C	14
1.2.3	- GUIDANCE	(WT	20 (								
1.2.3.1	- Fadaf	(WT	33 )	0	C	12	1	3	C		C
	- PASV FLTRN	(WT	11)	O	0	12	. 1	ŝ	0	.`	O
	- FLOTE OFTO	(WT	56)	(·	C	28	2	0	0	0	n
1.3	- C3 I	CWT	36 1								
1.3.1	- [W	(WT	<b>9</b> 1	Ç	0	1 1	1	.3	C	:	0
1.3.2	- NAV	(WT	100								
1.3.2.1		(WT	421	r	C	17	1	3	C	2	C
1.3.2.2		(WT	333	0	0	12	1	3	0	5	0
	- ELCTR OFTC	CWT	251	C	C	38	:	0	0	Ç	0
1,3.3	- COMM	CWT	20.	C	C	13	C	3	0	2	0
1.3.4	- SURV	(WT	30)		_	_		_	_	_	
	- RADAF	(WT	<b>4</b> 83	0	0	12	1	3	0	5 5	0
	- FASV ELTEN		24)	0	0	12	1	3	0		0
	- ELCTR OFTE	(WT	29)	0	0	28	5	0	0	0	0
1.3.5	- TARGETING	(WT	20)	_	^	4.5			^	_	_
	- RADAF	(WT	29)	0	0	12	1	3	0	5	0
	- FASV ELTEN	(WT	14)	0	0	12	1 2	-	0	3	0
1.3.5.3	- ELCTR OFTC	(WT	<b>5</b> 7)	0	0	28	2	0	0	0	0

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1 .	- TAC WAR									
	FACTOR	MT	099	057	962	063	045	072	075	082
4.)		33)	.00	.00	1.88	.00	.00	9.00	.00	.00
		28)	10.22	1.50	4.15	.31	1.45	.00	.17	2.50
										00
3)		39)	.00	.00	16.11	1.02	2.25	.00	1.50	
	TOTAL		2.84	.42	8.10	. 49	1.29	2.97	.64	.60
	TAC 1145.		ATEOE							
1.1	- TAC WAR		_ATFORM				0.5	0.70	075	082
	FACTOR	WΤ	666	057	065	063	065			-
		63)	. <b>o</b> o	.00	. იი	.00	.00	6.00	.00	• <b>0</b> 0
)	AIRFRAMES #(	38)	.00	.00	<b>5.0</b> 0	. <b>0</b> 0	. <b>೧</b> ೧	14.00	. <b>0</b> 0	.00
	TOTAL		.00	.00	1.88	.00	. 00	9.00	. 00	<b>6</b> 0
1.2	- TAC WAF	- W	EAFONT							
	FACTOR	W7		057	060	063	065	070	075	080
1.)		34	.00	.00	.0.	.00	.00	.00	.00	.00
		47)	21.96	3.23	.00	.00	្តា <u>ទំ</u> នួ	.00	.00	5.36
									, <b>9</b> 3	.00
31		207	.00	.00	20.96	1.50	1.32	.00		
	TOTAL		10.22	1.50	4.15	.31	1.45	.00	.17	2.50
1	.1 TAC WAR	-	WEAFONT	- r	A5NG 'M11	R.7				
	FACTOR	W٦	004	057	06:	೧ಕಿತ	065	07.	075	082
1.)	GUN: *C	413	.00	.00	.00	.00	.00	.00	.00	06
	ROCESTS *C		.00	.00	.00	.00	00	.06	.00	, <b>0</b> 6
	D# 2TJAMA AMA		.00	.00	.00	.00	.00	.00	.00	.00
	TOTAL	10.	.00		.00	.00			.00	.00
	[ [ ] ] +4!		. (11)	.07	-00	.00	.0∩	.00	.00	.0.
				_		_				
1.2	AAW BAT - C.				NTEFNAL.					
	FACTOR	WT	000	057	060	ひとよ	065	072	075	<b>0</b> P.1
1.)	WARHD CONV #4	40)	24.00	8.00	.00	.00	.00	.00	.00	.00
2)	FUZ1NG # C	21)	. <b>o</b> o	.00	.06	.00	12,00	.00	.00	. <b>0</b> 0
31	FROFFINTS AL	38)	32.00	.00	.00	.00	.00	.00	<b>, 0</b> 0	14.00
•	TOTAL		21.90	3.23	.00	.00	7 50	.00	.00	5.34
	1 ( ) ) • ( )		.1.70	3	• (10)		• • • •	• (7.2	. (, (,	,, 101
_				_						
1.2	.3 - TAC WAR				LIDANCE					
	FACTOR	WT	०५५	057	062	063	065	070	075	ORC:
1.1	RADAR + C	33)	.00	.00	12.00	1.00	3.00	.00	2.00	.00
ر ت	PASV FLTRN # C	11)	.00	.00	12.00	1.00	3.00	.00	2.00	.00
33	FLOTE OFTO *C	56)	.00	.00	28.00	2.00	.00	.00	.00	.00
-	TOTAL		.00	.00	20.96	1.56	1.32	.00	.88	.00
	10.174		•••		20176		,,,,,			
_		_								
1.3	- TAC WAR	_								
	FACTOR	W٢	099	057	062	063	065	072	075	080
		9)	. <b>0</b> 0	.00	11.00	1.00	3.00	.00	2.00	.0೧
2,		10)	.00	.00	16.00	1.25	2.25	.00	1.50	.00
3 /	COMM +c	221	.00	.00	13.00	.00	3.00	.00	2.00	.00
41	SUF V (	391	.00	.00	16.57	1.29	2.14	.00	1.43	.00
		20)	.00	.00	21,14	1.57	1.29	.06	.86	.00
	TOTAL	,	.00	.00	16.11	1.02	2.25	.00	1,50	.00
	101741		.00	.00	10.11	1.02	2.23	.00		. 0.,

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1.3.2 - TAC WAR	- (	23/1	- N	AV					
FACTOR	MT	699	057	967	660	065	070	6.10	085
1) RADAF #(	420	.00	.00	12.00	1.00	3,00	.00	2.00	60
2) PASV ELTRN +0		.00	.00	12.00	1.00	3.00	.00	2.00	.00
3 FEETR OFTE +1	-	.00	.00	28,00	2.00	.00	.00	.00	C
Trital	•	.00	.00	16 00	1.25	2.25	.00	1.50	.00
1.3.4 - TAC WAE	- 1	I ۶-	- 5	UEV					
FACTOR		000	ن ∍ ب	0.40	07	6.5	077	0.75	087
1 FATAR + C		. (1)	.07	12.00	1.00	3.00	.0.	7 0	.00
FACY (TERF +)		. 69	.00	10.00	1.00	3.0		2.30	
PECTE DET. ••			10	250.00	2.00	4.87	or.	(in)	0.0
7076	•	. 60		1	1.1%	200	.65	1 -3 *	. • •
ing region of the way.	- 1	73 !	. Т	រក្សាក្រ។ វ					
F. C. D. G.		7.1	7.5	Ay f	6. *	5.00		.1	6.83
1 - FABA			.00	1.	1 00	3 0 0	. ^	*	<i>€</i> 5 -
The state of the s		Če		4 - 4	• •	<b>7</b> ,	100	1000	<i>(</i> 1)
The state of the second	- 1					£*	, A++	0.5	(r)
1 .				. 1.3	, .	1 70%	കര	Si.*.	1.00

# COMPLETED DATA SHEET TUESDAY 8/19/1980 18.23

	NODE		WEIGHT		TZYZ			STEM SCOKES				
	NOIPE				080	081	073	083	084	027	064	077
											. <b></b> ~	
1		TAC WAR	(WT	100)								
1.1	_	PLATFORM	(WT	33)			_			•	^	Ĉ.
1.1.1	-	ENGINFS	(WT		0	0	Ç	0	6	0	0	Ö
1.1.2	_	AIRFRAMES	(WT	38)	0	0	0	0	0	,	()	ν.
1.2	_	WEAPONS	(WT	38)								
1.2.1	-	CARNG/MTRS	(WT	34)		_	_	_			ō	Ö
1.2.1.1	-	GNM3.	(WT	<b>A1</b> )	0	٥.	0	0	Ú			ó
1.2.1.2		ROCKETS	(WT	41)	(·	0	Ç	Ú		Ċ	0	6
1.2.1.3		STJAMANAMA	(WT	18/	n	0	0	0	0	(,	• • •	`
1.2.2	-		(WT	47)		_	^	e	į,	ŏ	0	r).
1.2.2.1			(WT	401	Ç.						· .	÷.
1.2.2.7		FULLNG	CILIT	210	٠.	0 15						ŕ
		E-E-OF-ET MILL	(W]	38.1	37	1 70	(,		•	•		
1.2.3		Childry : +	- W∃	50.	,		ċ.	e	i.	(·		1.
1.2.3.1		RATIAN	€₩1	33	C						` .	is
1.2.3.7		PASV ELTRN	(WT	111	0					·		
1.2.3.3		FLETH OFTE	البوا	510	Ú		(		'	•		•
1.3	-	T 73	(WT	39)	_					í.	7	•
1.3.1	-	€W	C₩3	çı i	Ω	( .	(1	Ó		• • •	•	
1.3.7	-	Na -	(WT	101	_			_				í
1.3.7.1		RADAL	(₩]	4.	Ć							
1.3.2.7		FASY ELTRA	( W )	33	(							
1.3.2.3		FECTE DETE	(WI	25	(				,			
1.3.3	-	- ርብሥ።	( W T	55.	Č	. (				,		
1.3.4		Sin C	(W)	3.5		,	. ,		. (	. (	. ()	- 6
1.3.4.1		RADAF	( W ]	45.	(							
1.3.4.7		PASV ELTEN	(WT	.74			_					
1.3.4.3		ELCTE OFTO	( W )	20.	(	, (	, (	. (	. (	, (	, (	
1.3.5		TARGETING	(WT			. ,	, ,	` '	) (	) (	) (	0
1.3.5.1		FADAF	(WT			) (						
1.3.5.3		FASV FLTRN	(WT			) (	-				_	
1.3.5.3	, -	FLCTR OFTC	(WT	57)	(	) (	) (	, (	, (	. (	, ,	``

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4	- TAC WAR									
•	FACTOR	WT	080	081	073	083	084	027	064	077
4.5		33)	.00	.00	.00	.00	.00	.00	.00	.00
		28)	6.42	3.21	.00	.00	.00	.00	.00	.00
		39)	.00		.00		.00		.00	.00
3,		37)		.00		.00		.00		
	TOTAL		1.78	.89	.00	.00	.00	.00	.00	.00
	TAC HAE	٠.,	ATE05:4							
1.1	- TAC WAR		LATFORM	•••			•••		0.4	
	FACTOR	WT	080	081	073	083	084	027	064	077
		63)	.00	.00	.00	.00	.00	.00	.00	, 20
27		38/	.00	.00	.00	<b>. 0</b> 0	.00	. 00	.00	.00
	TOTAL		.00	.00	.00	.00	.00	.00	. 00	.00
4	- TAT WAR	- 141	EAFIONS							
,	FACTOR	WT.	080	081	073	083	084	027	064	077
4.	• • • • •	34	.00	.00	.00	.00	.00	.00	.00	.00
		471	13.79	6.89	.00	.00	.00	.00	.00	.00
5.7	•	200	.06	.00	.00	.00	.00	.00	.00	.00
	TOTAL		6.42	3.21	.00	.00	.00	.00	.00	.00
	.1 - TAC WAR		MEAFIGNS	ra	SNG /MTR	~				
٠	FACTUE	ωT	080	081	073	083	084	027	064	077
			.06	•	.00	.00	.00			-
	•	41)	-	.00				.00	.00	.00
		41)	.06	.00	.00	.00	.00	.00	.00	.00
5)	)* 2T JAMA: AMA	18,	.00	.00	.00	.00	.00	.00	.00	.00
	TOTAL		.00	.00	.00	.00	.00	.00	.00	.00
1	TAC WAR	-	WE AF ON S	- TN	TERNALS					
	FACTOR	ωT	080	081	073	083	084	027	064	077
4.5	WARHD/CONV *C		.00	.00	.00	.00	.00	.00	.00	.00
		21)	.00	.00	.00	.05	.00	.00	.00	.00
	FROFELNTS *C	387	36.00	18.00	.00	.00	.00	.00	.00	.00
	TOTAL		13.79	6.89	.00	.00	.00	.00	.00	.00
1.2	.3 - TAC WAR	-	WEAFONE	- GU	IDANCE					
	FACTOR	WT	080	081	073	083	084	027	064	077
1)	RADAR #C	33)	.00	.00	.00	.00	.00	.00	.00	.00
7.	FASV ELTEN +(		.00	.00	.00	.00	.00	.00	.00	.00
	ELCTR OFTC *(		.00	.00	.00	.00	.00	.00	.00	.00
J .	TOTAL	,07	.00	.00	.00	.00	.00	.00	.00	
	TUTAL		.00	.00	.00	.00	.00	.00	.00	.00
1.3	- TAC WAR	- C	3/I							
	FACTOR	WT	080	081	073	083	084	027	064	077
1 .	EW +(	9)	.00	.00	.00	.00	.00	.00	.00	.00
2.		10)	.00	.00	.00	.00	.00	.00	.00	.00
		55)	.00	.00	.00	.00	.00	.00	.00	.00
		39)	.00	.00	.00	.00	.00	.00	.00	.00
		20)	.00	.00	.00	.00	.00	.00	.00	
<u> </u>		207								.00
	TOTAL		.00	.00	.00	. <b>0</b> 0	.00	.00	.00	.01

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1.3.2 - TAC WAR	-	C3/I	- NA	V					
FACTOR	WT	080	081	073	083	084	027	064	077
1) RADAR +(	42)	.00	.00	.00	.00	.00	.00	.00	.00
2) PASV ELTRN #(	33)	.00	.00	.00	.00	.00	.00	. 00	.00
3) FLOTE OPTS *(	25)	.00	.00	.00	.00	.00	.00	.00	. <b>0</b> 0
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00
1.3.4 - TAC WAR	_	C3/I	- su	IRV					
FACTOR	WΤ	080	081	073	083	084	027	064	077
1) RADAR #(	48)	.00	.00	.00	.00	.00	.00	. <b>0</b> 0	.00
2) FASV ELTRN #(	24)	.00	.00	.00	.00	. <b>0</b> 0	.00	.00	.00
3) ELCTR OFTC *(	29:	.00	.00	.00	.00	.00	. <b>0</b> 0	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	. <b>0</b> 0
1.3.5 - TAC WAR	_	C3/I	- TA	REFTING	,				
FACTOR	WT	080	081	073	OFIZ	084	0.25	Cic.4	077
1) RADAR #1	29)	.00	.00	.00	.00	.00	.00	.00	. <b>0</b> 0
□ PASV ELTRN ★ (	14)	.00	.00	.00	.00	.00	.06	.00	.00
3) ELCTR OFTC *C	57:	.00	.00	.00	.00	.00	.00	.00	<b>.0</b> 0
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00

APPENDIX C
THEATER NUCLEAR STRUCTURE AND DATA

### COMPLETED DATA SHEET WEDNESDAY 8/20/1980 9:32

NODE		WEIGHT				SYSTEM 200 000 005	SCORES					
					001	002	003	005	007	008	010	012
		TUTE NUC	707	100)								
1		THIE NUC	(WT:									
1.1	_	FLATFORM FNGINES	(WT	63)		_		,		5	5	4.0
1.1.1	_		(WT	38)	हा 4	5	9 00	6	5 0	10	13	12
1.1.7	_	AIRFRAMES WEAFONS	(WT	35)	4	O	. (	.,	U	10	יו	()
1.0.1	_	CASNG/MTES		24)								
1 2.1.1	_	CHM2	(WT	41)	G	0	11	0	٥	0	0	0
1.7.1.2		ROCEUTS	(WT	41)	ì	ó	3/	ő	Ġ	ò	0	÷
1	_		(14)	181	1	Ć.	30	Ö	ò	Ö	Ö	
1	_	INTERNALS	(WT	33,	,			•			ζ.	•
1.2.7.1		WARHTOTONY	(MT	40)	3	0	1.0	0	0	0	10	7.
1.7			(UT	21)	ò	ò	ંત	0	C	1	்வ	$\dot{\epsilon}$
1 2 . 2 . 3		PROFES NT.	·WT	380	6	r)	۲.	(·	ń	Ó	ė.	<i>i</i> .
3.2.3	_	GUIDAGEE	CMT	1.4								
1.2.3.1	-	FADAF	(WT	3	6	6	0	0	(1	0	6	6.
1.1.5.5	-	PACV ELTER	· WT	117	4.1	G	6	C,	n	0	6	0
1.2.3.3		ELCTR OFTC	Clair	•	6	Ç.	r.	$\phi$	Ó	G	$\epsilon$	a
1.2.4		NUT WEAFOR	CWT	25								
14.:	-	ANGO Divi.	· W 3	260	0	C	6	Ć.	6		71	ć.
1. 4.		TE.75 TUP	(Jan)	47								
1.2.4.2.1	-	INTERITION	تيا	11.	0		(1		4.	۲.		
1.2.4.2.2	-	HYDRODANAM	CUT	37	0	0	6	0	6	O	- 1	6
1.2.4.2.3		NUE TESTIE	CLIT	53)	$\boldsymbol{c}$	0	6	0	Ó	0	6	0
1.0.4.3	-	ST NUT MAT	( W.)	70	0	$^{\circ}$	Ó	O	0	(	- 6	í,
1.2.4.4	-	เมียดยากการเราะ	√W.T	130	O	Λ	Õ	$\circ$	<i>(</i> *)	- 6		r
1.2.4 %		FAU ADDIES	CW 1	14 -	0	C)	•	4.	1	(,	Ġ	Ġ
1.3	**	ng 1	(W1	36 1								
1.3.1	-	Flu	CWT	95	O	0	C,	O	O	Ü	Ç	
1.3.2	-	NAV:	(W)	<b>\$</b> (0.0)								
1.3.2.1	-	RADAR	(WT	4.	0	0	0	0	O	0	0	O
1.3.2.2	-		(WT	33)	0	0	Ç	0	0	O	C	6
1.3.3.3	-	ELCIE OFIC	CUT	55 (	0	0	G	6	0	0	9	O
1.3.3		Cijwn	(WT	22)	0	0	0	0	0	0	·	C,
1.3.4			(WT	397								
1.3.4.1	•		(WT	<b>4</b> 80	$^{\circ}$	0	()	0	0	0	0	G
1.3.4.2	-		(WT	24)	O	0	O	0	O	0	0	Ò
1.2.4.7	-	•	CWT	561	O	r	()	(i	G	G	0	r.
1.3.5	***	TARGETING	CUT	20 (	_					-		_
1.3.5.1	-		(47	29)	0	0	0	0	0	0	0	0
1,3,5,0	-		(WT	14)	ç	0	0	0	Θ	0	0	0
1.3.5.3	-	ELOTE OFTO	(WT	57)	0	0	0	0	0	0	0	0

THIR NUC-1	MEDNEZDAY	8/20/1980	9:31
------------	-----------	-----------	------

1) PLATFORM ( 3	WT 001 30) 6.50 35) .55 35) .00 2.12	002 1.25 .00 .00	003 12.59 6.79 .00 6.05	005 4.88 .23 .00	007 3.13 .70 .09	008 6.88 .19 .00	010 8.00 1.64 .00 2.95	012 7.50 .69 .00 2.47
THE MILE	- FLATFORM							
* * *	MT 001	002	003	005	007	908	010	012
THE THE THE THE	•	2.00	8.00	6.00	5.00	5.00	5.00	12,00
2) AIRFRAMES *		.00	20.00	3.00	.00	10.00	13.00	.00
TOTAL	6.50	1.25	12.50	4.8A	3.13	6.88	8.00	7,50
	- WEGEONS							
	— <b>м</b> енечиз мт 001	002	003	005	007	ନ୍ଦନ	010	01.2
\$ \$40.	24) .50	.00	27.18	.00	.00	.00	. 60	1,18
•	33 1.21	.00	4.04	.00	,00	.21	4.04	1.21
• ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	14 .00	.00	, 66	. 00	.00	.00	.00	. 60
	00.	,00	.00	. 80	45	.41	1.05	.00
1014	.55	.00	6.76	3	.70	.19	1.64	.69
			A 60-10					
1 THIE 1900	~ WEARDN:	- 1	l Emilinaza Edd	0.05	007	908	010	012
• • •	WT 001	000	11.00	.00	.00	.00	.00	.00
,	41 .00	.00 .00	30.60	.00	.00	.00	.00	2,00
	1.00	.00	30.00	.00	.00	.00	.00	2.00
THMA TMA (5 ATTIF	# F F	.00	22.18	.00	.00	.00	.00	1.18
			NEE FINAL	•				
1.7.7 THIR NUE	- WEAPTIN.	002	NTERNAL 003	005	007	008	010	012
FACTOR	WT _001	.00		.00	.00	.00	10.00	3.00
€> MUNITURE *C	401 3.00	.00	.00	.00	.00	1.00	.00	00.
D) EILLING ★(			.00	.00	.00	.00	.00	.00
ታ¥ - ሚቸዛጠ3ማጣክልዓ (ድ (ሕ፤ፅ)ፒ	1.21	100	4.04	.00	.00	.21	4.04	1.21
THIS HUM			UIDANCF 003	005	007	008	010	017
FACTOR	WT 001	002		.00	.00	.00	.00	.00
	33) .00		.00		.00	.00	.00	.00
2) PASV FLTRN *(			.00	.00 .00	.00	.00	.00	.00
3) (1016 መምገር 🖜			.00	.00	.00	.00	.00	.00
TOTAL	.00	.00	.00	.00	.00	.00		
1.0.4 - THIE NUC	- WEAFON	s - 1	NUC WEAF			***		A4.5
FACTOR	WT 001	902	007	005	007	800	010	912
11 ANAL TEVEL #C	26) .00		.00	.00	.00	.00	2.00	.00
	43) .00		.00	.00	.00	. 95	2.42	.00.
3+ SE NIIC MAT +0			.00	.00	.00	.00	.00	.00
4 / WEAPONZATH *C			.00	.00	.00	.00	.00 .00	.00
5 FABZASSEME #C			.00	6.00	18.00	.00	1.05	.00
TOTAL	.00	.00	.00	.82	2.45	.41	1.05	.00

## THTR NUC-1 WEDNESDAY 8/20/1980 9:31

			- WEAFONS	_	NUC WEAF	ON - TE	STING			012
	4.2 - THTR N			002	003	005	007	608	010	
	FACTOR	WT	001	.00	.00	.00	.00	9.00	23.00	.00
1)	INSPECTION *	(11)	.00		.00	.00	.00	.00	.00	.00
2)	HYDRODYNAM #4	( 37)	.00	.00	.00	.00	.00	.00	.00	.00
3)	NUT TESTNE *	(53)	.00	.00		.00	.00	.95	2.42	.00
<b>J</b> ,	TOTAL		.00	.00	.00	.00	.00	• • •		
( 3	- THTR NUC	- 01	3/1		007	90 <u>5</u>	907	908	010	012
	FACTOR	WT	001	002	003	.00	.00	.00	.0∩	.00
4.5	EM *	( 9)	.00	.00	.00		.00	.00	,00	.00
	NAV	(10)	.00	.00	.00	.00	.00	.00	.00	. 00
		( 22)	.00	.00	.00	.00	-	,00	.00	.00
		( 39)	.00	.00	.00	.00	.00	.00	00	.00
	TARGETING	( 20)	.00	.00	.00	.00	.00	.00	.00	.00
5)	TOTAL		.00	.00	.00	.00	.00	. (10	• • • • • • • • • • • • • • • • • • • •	• • •
	m mutt. Mil	ı.  _	L3 .1	- N	AV			- 44:	010	017
1.3	.2 - THTR NU	" ผา	001	001	700	005	607	608		00.
	FACTOR			.00	.00	.00	.00	,00	.00	
1)		42	-	.00	.00	.00	.00	.00	.00	.00
2)	PASV ELTRN	* ( 35 !		.05	.00	.00	.00	.00	.00	.00
31	ELOTE OFTO	k( 25)	.00	.00	.00	.00	.00	. 00	. ೧೧	.00
	TOTAL		.66	• (,,,,	• • • • • • • • • • • • • • • • • • • •	• •				
	3.4 - THIR N	uc -	- 03/1		RURV		007	909	010	012
1	FACTOR	ันา	001	002	003	005	• • • • •	.00	.00	.00
	RADAF	* ( 43°		.00	.00	.00	.00	.00	* 1	.00
1	PASV ELTEN			.00	.00	.09	.00	.00		.00
- 4	ELCTR OFTC	200	00	.07	.00	.60	.00	.00	<del>-</del>	,00
3	TOTAL		.00	.00	.00	.00	.00	.00		,
		u c	. 67.11	_	TARGETIN	۱ <b>۲.</b>				645
1.	3.5 - THTR N	IIIL	001	000		GO.	667	008		012
	FACTOR	มา		.00		.05	.00	.00		.00
1		*( 29	-	.00	-	.00	.60	.00		.00
2	FASV FLTRN	*( 14	.00	.00		.00	.00	.00		.00
3	FLCTR OFTC	<b>*</b> ( 57	· .00	.00	7	.00	.00	.00	.00	.00
	TOTAL.		.00	. (10)		• • •	-			

#### CONFLETED DATA SHEET WEDNESDAY 8/20/1980 11 50

NOTIF			WEIGHT				5Y2	TEM	SCOR	FS		
		•			016	017	022				028	030
1		THIE NUC	767	100)								
1.1	_	FLATFORM	(WT									
1.1.1	_	FNGINES	(WT	63)	2	6	0	0	46	٥	6	0
1.1.2	_	AIRFRAMES	(WT	38)	5	4	2	ò	10	À	ò	ò
1.2	_	WEAFONS	(WT	350		•	-	٠,	, .			•
1.2.1	_	CASNG/MTR3	(WT	24								
1.2.1.1	_		(W1	41)	11	2	11	Ċ	F 5:	-		r.
1.2.1.2	_	ROCKETS	(WT	41		10	1	ં	- 6		Ó	
1.2.1.3		BME/EMBLTS	(WT	18)	3	10	i	ő	ō	i.	ċ	
1.0.9	~		(WT	33)	•	• • •	•	•	•		•	
1.2.2.1		- · · - · · · · · · · · · · · · · · · ·	(WT	400	6	6	ę.	Ö	0	0	7.	6
1.2.2.1	~	FU7104	(WT	21 /	1	0	1	7.	r.	4.	1	Ċ
1.2.2.3	-	PENTELNIT	(WT	351.	7	O	0	C.			r.	6
1.2.3	~	GUITDANCE	(WT	14								
1.2.3.1	-	RADAR	(W1	3.5	1			1.7	i, i			r
3.7		PACK FLITPS	167	1.	č.	Ō	0	1.7	r,	,,	.,	.,
13.3	٠.	FELTH OFFI	W~	100	۲.		7.		Ċ,	6	•	
1.7.4		NUMBER OF A	lui⊺	-								
1 1 2 1		ANAL TO J	· wh	34.5								7.
		TT 17 (4)	1.6	47								
1.2.4.2.1		1809163100		11.	ď	4.	6					
1.7.4.2.2		HIDEOTYBEE	1417	3	7.	'n	6	û	0	į.		r.
1.7.4.2.3		NILL TECTME	· WT		0	0	Ć.	i)	6	Ó	6	0
1.2.4.3	-	SE NUT MAT	: W 7	7 .	Ċ	Ó	Ö	C		Ġ.	ō	<i>r</i> .
1.2.4.4		WEAFTINTATO	· Wī	17.0	č.	0	O		6	Ó	ń	
1 4 . '	-	TATE ACTION	CUT	1.4	+ 1	6	1.7	6	0	O	c.	•
1.3			CW3	21								
1.3.1		F 42	Clair	ς,	0	0	Ō	15	ō	Ó	6	(
1.3.2	_	NAV	(WT	1(0)								
1.3.2.1	_	RADAR	(WT	4.7	0	0	0	17	r,	O	6	۲.
1.3.2.2		PACV FLITER	( WT	33,	0	C	C	17	6	ï	Č	6
1.3.2.3		ELETE OFTE	CUT	٦r,	0	C,	C	6	6	75	3.0	6
1.3.3	-	COmm	(WT	22.	0	0	G	15	0			7
1.3.4	-	SURV	(UT	391				• •				
1.3.4.1		RADAR	(WT	480	0	0	C	17	0	1.	6	1.
1.3.4.0	-	PASV FLIRN	CUT	24)	Ó	ń	0	17	0	O	C.	6
1.3.4.7		ELETP OFTE	(W)	260	Č.	0	Ö	Ċ.	ő	1	72	6
1.3.5	-	TARGETING	(WT	20)	•		•		•			
1.3.5.1	-	FADAL	(WT	29)	0	0	0	17	0	G	c,	6
1.3.5.2	_	PASV ELTEN	(WT	14)	Ö	Õ	0	17	'n	Ġ	Ġ	Ğ
1.3.5.3		FLCTP OPTC	(UT	57)	Ö	õ	ö	0	Ġ	6	70	ć
_					•	•	•	•	•••	• • • • • • • • • • • • • • • • • • • •	•	

THTR NUC-2 MEDNESDAY 8/20/1980 11:50

1 - THTE NUC									
FACTOR	WT	016	017	022	024	025	026	628	030
	30)	3.13	5.25	.75	.00	10.00	.00	.00	.00
	35)	1.59	1.60	2.65	1.27	5.76	.20	3.10	.90
	35)	.00	.00	.00	13.04	.00	.00	9.70	.00
TOTAL	337	1.48	2.12	1.22	5.06	4.98	.07	4.51	3.7
TOTAL.		1.40	2.12	1.1.2	3.00	4. 77		-	• • •
1.1 - THTR NUC	- F1	ATFORM							
FACTOR	WT.	016	017	027	07.4	0.75	627	020	030
	631	2.00	6.00	.00	.0	10,00	.00	.00	.00
	3(R)	5.00	4.00	2.00	.00	10,00	.00	.00	.00
	,3 P. 1	3.13	5.25	.75	.00	10.00	.00	.00	.00
TOTAL		3.13	5	. 73	.0"	10.00	. (///	. (///	• • • •
		"AFTINE"							
FACTOR	ผา	016	617	C.T.I	67.4	65.	628	6190	637
17 CARNG/MTRO (	24 .	6.?⊂	6.71	5.1~	.00	23.85 €9.85	8	0.5	2 61
D) INTERNALS (	33	1	.00	3.45	.64	.00	.00	.00	.00
3 GUIDANCE /	14	.000	.01	.06	7.49	.00	.00	21.84	.0.
4) NHC WEAPON (	280	. (16	.00	1.64	.00	.00	.00	.00	. 69
707a:	•	1.5-	1.60	2.85	1.77	5.76	.20	3.10	.90
		•		~					•
1.2.1 - THIE NO.				ASNG/MT					
FACTOR	WT	On e	017	022	024	0.25	0.26	<b>0.</b> 28	030
	411		5.00	11.00	,00	58.00	5,00	.00	.00
2 / ROCKETS ★C	41)	3.00	10.00	1.00	.00	.00	.00	. 00	5.00
- 3) BME EMBLIS ★0	15.1		10.00	1.00	.00	.00	.00	. <b>0</b> 0	F .00
TNTAL		۶٦٩	5.71	5.17	.00	23.8a	.87	. 00	7,94
1.2.2 " THIE NUM	_	WEAFTING	- I	NTERNAL	<u>c</u>				
FACTOR	W1	016	017	020	024	025	0.24	028	030
1) WAPHTE CONV +C		.00	.06	8.00	.00	.00	.00	.00	.00
	21	1.00	.00	1.0	3.0	.00	.00	ဂ်ဂ	Ò
3) PROPELNIS *C		.00	Ť.	.00	.00	.00	.00	.00	60
TOTAL	.,,,,,	. 21	.00	3.45	.64	.00	.00	.00	.00
1 ( '   14;			• (//	1. <del>4</del> .	.04	• 0//	.00	• (7.7	, 1,1
1.2.3 - THIE NUC				UTDANCE					
FACTOR	₩T	016	017	023	024	025	026	028	030
1) FADAF #(	33)	<b>,0</b> 0	.00	.00	17.00	.00	.00	.00	. 00
2) PASV FLTRN #(	11)	.00	.00	.00	17.00	.00	.00	.00	.00
3) FLCTP OPTF ★(	56)	.00	.00	.00	.00	.00	.00	39.00	.00
TOTAL		.00	.00	.00	7.48	.00	.00	21.84	.00
		•				• •	• • •		
1.2.4 - THTR NUC		HE AFIDAG	_ 1	UC WEAF	ON				
FACTOR	₩T		017	OZZ	074	025	026	630	036
	** .	016	-					028	• .
1) ANAL/DEVEL *C		.00	.00	.00	.00	.00	.00	.00	.00
	43)	.00	.00	.00	.00	.00	.00	.00	.00
3) SE NUC MAT +		.00	.00	.00	.00	۰٥٠	.00	• 00	.00
4) WEAFONZATH +		.00	.00	.00	.00	.00	.00	.00	.00
5) FAR/ASSEME #(	14)	.00	.00	12.00	.00	. 60	.00	. 96	5.00
TOTAL		.00	.00	1.64	.00	.00	. Of:	.00	٠,٨٩

THTF NUT-2 MEDNESDAY 8/20/1980 11:50

	THE M	ur -	- WEAPONS	_	NUC WEA	FON -	TESTING			
	4.2 - THTR N FACTOR	WT .	016	017	022	024	025	026	028	030
	THUSECTION *(		.00	.00	.00	.00	.00	.00	.00	.00
3.7	IN FELITION BY	77)	.00	.00	.00	.00	.00	.00	.00	.00
	HYDEODYNAM *C		.00	.00	.00	.00	. 00	.00	.00	. 00
-	NHC TESTNG *( TOTAL	<b>J</b> 3,	.00	.00	.00	.00	.00	.00	.00	.00
1.3	- THIL NUC	~ 03			020	024	025	026	0.28	030
	FACTOR	WT	016	017	623	15.00	. ēe	.00	.00	. 00
1 .		93	.00	.00	.00		.00	00	Q 75,	.00
· ,		1(1)	.00	.00	.00	12.75	.00	.00	.00	0.0
7.	1 (211)	50.	.00	.00	.00	12.14	.00	.00	11.14	.00
		1.5°	, õç	.00	.00 .07	7.74	.00	iòò	၁၁ ၁၆	0.0
		200	. 0∙	.00	.00	13 64	.00	.00	9.70	, 60
	20071		.07	.06	• (	1,5 1.00	• • • •	•		
• 7	· THIS NO		(3.1	~ N	41					ስፕ»
	1 p. 3116	4.7	030	017	027	G**4	0.54	0.79	0.58	
	17:50	4.		0	, a :-	17.00	$\cdot$ $\circ$	15,000	. 0	Ç
	1 1170 •		.60	. (-	. 10	17 60	.00	, 00	.00	Û
• '	11 TF 0F7 +		Č.		, for	. ^ -	, 60	.00	<b>3</b> (4) (6)	Ç.,,
4	The second	•	. (	.0	, 63	17 71	,00	• •••	4 P	*,**
	*****		67.1	- 5	SHE'S					
1 7	, क् अस्मार स्थार			617	opt	674	654	026	02%	030
	FAC 3 (9)	W.T	.07	.65	.0.	17.00		.00	.00	<b>U</b> ·
1 .	- 自点で点を ・	4>	ůi.		. 60	17 60		.00	, (10)	, 66
	(1) A (1) (1) →		. 000 . 000		.0	. 01		.00	39,00	.00
	E. 11 00 10 +	· • •	.00	. ()	, co	12.14		.00	11.14	.00
	ी है। देव		• (***	. (/-	• •		. •			
,	THITE NO		63.1	<u>.</u>	TARGETT	J.,			0.50	635
•	1	ω?	Ote	017		v			0.20	. (0
	parai .		.00	. 60	.00			.00	.07	
٠,	F 2 74 P. TE 4			.00	.66			.00	.00	.00
-	THE PERSON		.0:	.00	.07	. 0		.00	39.00	.00
,	141744		.00	, 66	.60	7.29	00	.00	22.29	.60

#### COMPLETED DATA SHEET WEDNESDAY 8/20/1980 10 03

NODE			WEIGHT		031	032			\$00F 035		038	<b>い</b> まむ
1	_	THIE NUC	(WT	100)								
1.1		FLATFORM	(WT	30,								
1.1.1	_	ENGINES	(WT	63)	2	Ģ	21	7	1	4	0	0
1.1.2	_	AIRFRAMES	(WT	38)	6	٤	2	0	٥	0	<i>i</i> .	10
1.2	_	WEAFON!"	(WT	351								
1.1.1	_	CASNG/MTRE	CUIT	24)								
1.2.1.1	_	COR.	CUT	411	0	Ö	-	r.	0	0	Ö	
1.2.1.2	_	ROCECTS	(WT	411	0	0	ě.	Ċ.	Ų.	44		
1.2.1.3		PMP/PMP/TS	(W)	12:	0	6	(	$\epsilon$	$\phi$	4.;		
1	_	INTERNALS	(WT	330								
1.1.7.1	-	WARHTHIRDING	(WT	400	0	Ö	0	0	Ō	V.	· ·	6
1.7.7.1		FULING.	(WT	710		7.	Ġ	7.	_	.5	- 7	7
1.7.7.3		ERURE LATE	∹W⊃	300	Ó	•**		• ``	6			<i>(</i> -)
17	-	EUT Tobase E	آ فيل	3 4								
1		្រុកស្រុក	· Wit	37	<i>(</i> -	•	0		•	¥ +	,	<
1.1.1.	•	FATV ELTER	· 147	11:	(		- (	č.	.*	Č		
1.0.3.0		ELLITE OF TO	· W7	4.7	ť.	•		t -		7		
14		NULL MEMETER	· will	Ω£.								
14.1		ARE IF VE	• W ?	. · · ·		(C)	1.0		•			
Y	-	TE TIME.	١ لنا ١	4.7								
1 4 1		INTEL TAKE	1.45	1 * *								
1 4		HITIRRY HARR	C44.3	3.7	7	5.5		÷.	• •	• •		
143	-	NUC TESTAL	· iu 7	1.00		·	4.5			• •		
1.7.4.3	-	TAM DUN 112	CLUT	7	7	7	7.		7.	G	٠.	
4 4 4	-	<b>- 研究的研究等级</b>	· Wit	100	r.	Č.			•	1		
1,2 4.5	-	<b>FAR ACCUM</b>	(ليان	1.4	,*	r.	- 6	÷,	٠.	· ·	1.4	6.0
<b>,</b> 5	-	03-1	cw r	4.5								
1.5.1	-	E₩	5 W T	Ç,	í	1.		€:	$\epsilon_t$	7.	-	:
1.3.7		NAV	(WT	100								
1.3.2.1	_	RADAR	€₩7	4.7 )	۲,	0	C.	0	6	0	٠,	,
1.3	-	MRTJE VZAM	⊺نبا€	77.	6	(1	0	ń	0	0	ŕ.	5
1.3. 3		ELCTR OFFC	CET	25.	r.	č.	Ō	Č.	r.	f,	• •	- 6
1.3.3		CUMP	CWT	•		C	()	0	1.7	<i>t</i> -	,	
1.3.4	-	2016	CMT	7.								
1 7 4,1		PANAF	CL) F	44	۲.	()	O	(-	0	( .		•
1.3 1.2		WHEAT VEAT	147	. 4		r.	C	0	6			
3.3.4.8		U.CTF 0677	$C \mathcal{K}^{\alpha}$	٠. د	Ġ	6	(,	(	6	1		
1.7.5	-	TARGETING	A LOT	2								
1.3.5.5	•		(WT	500	O	G	- €	e	0	6	r	٤٠
1.75	-	PASY ELTRN	CWT	14:	Ó	0	0	1)	6	0	G	€,
1.3.1.3	-	ELCTE OFTI	(WT	-	C	(i	G	7.	(·	t)	- O	6.

#### THTR NUC-3 WEDNESDAY 8/20/1980 10:02

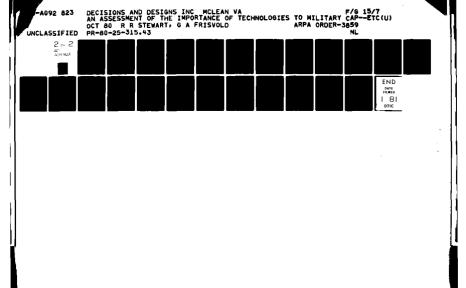
1 .	- THTR NUC									
•	FACTOR	WT	031	032	033	034	035	036	038	039
		30)	3.50	2.25	2.00	4.38	.63	2.50	.00	. <b>0</b> 0
		35)	.00	.00	.20	.00	.35	6.24	.23	.50
3)	_	35)	.00	.00	.00	.00	.00	.00	3.26	6.24
	TOTAL		1.04	.67	.66	1.30	.31	2.92	1.23	2.36
1.1	- THTR NUC		ATFORM							
	FACTOR	WT	031	032	033	034	035	035	038	039 .00
		63) 38)	2.00 6.00	.00 6.00	2.00 2.00	7. <u>0</u> 0 .00	1.00	4.00 .00	.00	.00
2)	AIRFRAMES *(	36)	3.50	2.25	2.00	4.38	.63	2.50	.00	.00
	TOTAL		3.50	2.23	2.00	4.30	•61	27.70	• • • • • • • • • • • • • • • • • • • •	.00
	*****									
1	- THIF NUC FACTOR	- WI	2409A3 031	032	033	034	035	036	038	039
4.5		24	.00	.00	.82	.00	.00	25.88	.00	.00
		331	.00	.00	.00	.00	1.06	.00	.00	.00
		14)	.00	.00	.00	.00	.00	.00	1.65	3.52
		28:	.00	.00	.00	.00	.00	.00	.00	.00
	TOTAL	• •	.00	.00	.20	.00		6.24	.23	.50
				• -						
• 2	.1 - THIF NUC	_	HE VEUNIL		ASNG/MTI					
,	FACTOR	WT	031	032	033	034	035	036	038	039
1.)		411	•	.00	2.00	.00	.00	.00	.00	.00
		411	.00	. <b>0</b> 0	.0c	. 000	.00	44.00	òo	.00
	HMR HMH TS .		.00	0.0	.00	.66	.00	44.00	.00	.00
	τοτ <del>ά</del> ;		.05	.00	.80	.00	.00	25.89	0.0	.00
1.3	.2 - THIR NEE	_	MEAFONS	- 1/	NTEFNAL:	-				
	FACTOR	WT	031	032	033	034	035	036	035	036
1.3	WARHT CONV AL	400	.00	. (-	.00	.00	.00	.00	.00	.00
2)	FUTING *:	213	.00	.0.	.00	.0.	5.00	.00	.06	.00
31	PROFELENTS	38)	.00	.0€	.00	.06	.00	.00	.00	.00
	TOTAL		.0⊖	.00	.00	.00	1.05	.00	-00	.00
1.2	.3 - THIE NUC	~	WEAFONE	- GI	DIDANCE					
	FACTOR	WT	031	030	033	034	035	036	038	036
		33)	.00	.00	.00	.00	.00	.00	5.00	8.00
-	PASV ELTRN *(		.00	.00	.00	.00	.00	.00	. <b>o</b> o	8.00
3)	ELCTR OFTC *C	56)	.00	.00	.00	.00	.00	.00	.00	.00
	TOTAL		.00	.00	.00	.00	.00	.00	1.65	3.50
1.2	.4 - THIR NUC		WEAFONS		UC WEAF!					
	FACTOR	WT	031	032	033	034	035	036	038	039
	ANAL DEVEL *C		.00	.00	.00	.00	.00	.00	.00	.00
-		43)	.00	.00	.00	.00	.00	.00	.00	.00
	SF NUC MAT *( WEAFONZATN *(	7)	.00 .00	.00	.00	.00	.00	.00	.00	.00
	FAR/ASSEME +C		.00	.00	.00 .00	.00 .00	.00	.00 .00	.00	.00
۱ ر	TOTAL	1 🤜 🤈	.00	.00	.00	.00	.00	.00	.00	.00
	·OIRE		.00	.00	. 00	.00	.00	• •	• (7)	

#### THTR NUC-3 WEDNESDAY 8/26/1980 10:02

1.2	.4.2 - THTR N	uc -	WEAFONS	_	NUC WEA	FON -	TESTING			
	FACTOR	WT	031	032	033	034	035	036	038	039
1)	INSPECTION #4	11)	.00	.00	.00	.00	.00	.00	.00	.00
2)	HYDRODYNAM # (	37)	.00	.00	.00	.00	.00	.00	.00	.00
3)	NUC TESTNG *(	53)	.00	.00	.00	.00	.00	.00	.00	. <b>0</b> 0
	TOTAL		.00	.00	.00	.00	.00	.00	.00	.00
1.3	- THTF NUC	- C3/	I							
	FACTOR	WT	031	03?	033	034	035	034	038	030
10	EW ¥€	9)	. იი	.00	.00	.00	<b>,0</b> 0	.00	8.00	8.00
2)	NAV (	10.	.00	.00	.00	.00	.00	.00	2.08	6.00
		<b>3</b> (1)	.00	.00	.00	.00	.00	.00	5.00	9.00
4)	SUFV	₹9)	.00	.00	.00	.00	.00	.00	2.38	5.71
5 🤄	TARGETING C	20 (	.00	.04	.00	.00	.00	.00	1.43	3.43
	IATOT		.00	.00	.00	.00	.00	. 00	3.26	6.24
1.3	.2 - THTE NUC	- C	3/1	- N	ΑV					
	FACTOR	W 7	031	037	033	0.34	035	034	038	ሰጓሩ
1.5	RATIAE **	4.7	.00	.00	.00	.00	.00	.0	5.00	8,00
$\mathbf{r}$	FACY FLITTIN *1	33)	.06	.00	.06	.00	.00	.00	, <b>0</b> 0	R.00
3 -	FLOTE OFTL **	251	.00	.00	.00	.07	.00	.00	200	.00
	1614:		.00	.00	.00	.66	. 60	Ore	2,08	6.00
1.3	.4 - THTE NUC	<b>-</b> C	3/1	- 51	UEN					
	FACTOR	WT	031	632	033	034	031	036	038	03¢
10	RADAF *(	481	.00	.00	.00	. 0	.00	.00	5.00	8.00
20	PASV ELTRN **	24)	.06	.67	.00	.00	,00	.00	.00	8.00
3)	ELCTE OFTC **	29)	.00	.00	.00	.00	.00	.00	.00	.00
	T01Ai		• 00	.00	.00	.00	.00	.00	2.38	5.71
1.3	.5 - THTE NUC	- c	3 · 1	- T/	ARGETING					
	FACTOR	WT	031	032	033	034	034	037	038	039
1.)	RADAR + (	29)	.00	.00	.00	.00	.00	.00	5.00	8.00
2)	FAST FLTEN *:	143	.00	.00	.00	.00	.00	.00	.00	EU, OU
3)	ELCTE OFTC * C	57)	.00	.00	.00	.00	.00	.00	.00	.00
	TOTAL		.00	.00	.00	.00	.00	.00	1.43	3.43

### COMPLETED DATA SHEET WEDNESDAY 8/20/1980 10:09

NOTIE		WEIGHT						SCORES				
					040	041	042	043	044	045	046	047
1		THTE NUC	(WT	1007								
1.1	_		(WT	30)								
1.1.1	_	ENGINES	(WT	63)	0	3	0	0	0	C	0	0
1.1.2	_	AIRFRAMES	(WT	38)	0	2	0	0	0	0	0	0
1.2	_	WEAFINS	(WT	35)								
1.2.1	_	CASNG/MTRS	(WT	24)								
1.2.1.1	-	GUNS	(WT	41)	0	0	C	C	0	0	Ö	0
1.2.1.2	_	ROCKETS	(WT	411	0	0	Ü	$\mathbf{c}$	C	0	ဂ	0
1.2.1.3	-	RMB/BMBLTS	(WT	181	0	0	(·	0	C	0	C	0
1.1.2	_	INTERNAL "	CWT	330								
1.2.2.1	•-	WARHIN CONV	(WT	400	0	ſ	O	C	3	10	C	0
1.0.2.0	-	FUTING	(WT	21)	$\epsilon$	C	0	C	n	0	O	r)
1.2.2.3		EBUELL NICE	( MT	₹6.4	O	(	0	$^{\circ}$	C	0	0	
1.2.3		GUTDANCE	(WT	14								
1.2.3.1	-	FADAL	(W1	33)	7.	5	6	.3	0	0	0	1
1.0.3.2	-	FASV ELTEN	<b>₹W</b> T	1.1	6	5,	ć	4	- 0	0	0	1
1.2.3.3	-	ELCIR OFTI	(WT	61.61	Ó	$^{\circ}$	15	Ģ	0	C	4	Ξ.
1.7.4	-	NUE WEAFON	(WT	283								
1.7.4.1		ANAL THEVEL	(WT	26.5	Ç.	C	Ĺ	Ċ	Ċ	C	C	0
1.2.4		TESTING	(WT	43								
1.2.41		INSPECTION	CWT	11)	1.	(-	$\circ$	O	Ö	0	O	0
1.2.4.2.2	-	HYDRODYNAM	CWT	37.	0	0	C	0	0	0	n	O
1.1.4.1.3	-	NUL TECTNO	€₩T	53	Ō	<i>(</i> -	$\epsilon$	0	O	0	0	v
1.2.4.3	-	OF NUC MAT	(WT	7 ,	0	$\circ$	0	O	0	0	0	Ó
1.2.4.4	~	MTACHITTA 3W	(WT	100	(,	r	0	O	0	C	C	C
1.2.4.5	-	FAR ACSEME	CWT	14	r.	C	Ō	$\phi$	0	O	0	0
1.3	-	C3 1	€₩7	₹=								
1.3.1	-	E₩	CMT	94	۳,	4	€.	5	0	0	0	1
1.3	-	VAN	(WT	10)								
1.3.2.1	-	RADAF	(WT	4.7 1	3	5	6	3	0	0	0	1
1.3.2.2	-	FACE [] TEN	(W)	33.	¢.	Ē.,	ť	6	0	C	C	1
1.3.2.3	-	ELCTR OFTC	, <b>U</b> T	25)	C.	0	1 "	0	0	C	4	5
1.3.3	-	COMM	CWT	220	3	Ε.	C,	6	0	O	0	0
1.3.4	-	SUFV	(WT	39)								
1.3.4.1	-	· · · · •	(WT	<b>4</b> 8⊃	3	5	ć	- 3	0	Ç	0	1
1.3.4.2	-	PASV ELTRN	(WT	24 -	ć	۳,	ć.	6	0	0	G	1
1.3.4.3	-	ELCTE OFTE	(WT	560	C	O	15	0	C	0	4	3.
1.3.5	-	TARGETING	(WT	500				_			_	
1.3.5.1	-	RATIAF	(WT	580	3	5	6	3	0	Ç	0	1
1.3.5.2	-		(WT	14	6	5	6	6	0	0	0	1
1.3.5.3	-	ELCTH OFTC	(WT	57)	C	0	15	0	0	0	4	5



## THTR NUC-4 MEDNESDAY 8/28/1988 18:89

3) C3/I (35) 2.90 3.67 6.89 3.57 100 100 100 100 100 100 100 100 100 10	
44 - THIR NUC - PLATFORM	
HT 040 041 042 045 044	047 .00
FALTUR 1/47 00 3.00 .00 .00 .00 .00	.00
7) ENGINES #(38) .00 2.00 .00 .00 .00 .00	.00
2) AIRFRAMES #( 38) .00 2.63 .00 .00 .00 .00 .00 .00	
1.2 - THTR NUC - WEAPONS 0.2 0.4 0.45 0.45	047
DAD 041 042 044	-00
CASNE (MTES (24) 00 00 00 00 00	-
D. TATELNAL C (33) .00 .00 .00 1.21 4.04 .00	
7. CHIDANCE (14) 1.65 2.20 11.04 1.65	
1) MID BEATON (28) .60 .00 .00 .00 .00	
4) NUCL WEAPON ( 28) .00 .00 .00 .00 1.35 .30 1.57 .23 .40 1.35 .30	• • •
1.2.1 - THIR NUC - WEAPONS - CASNG/MTRS	
040 041 042 043 044 045 045	
00 00 00 00 00	
00 00 00 00 00	
2) RUCKETS - 40, 00, 00, 00, 00, 00	
3) PMR/PMRLTS *(18) .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	o . @r
1.2.2 - THTR NUC - WEAPONS - INTERNALS	
040 041 043 044 045 04	•
FACTUR W 00 00 00 3.00 10.00 .0	
00 .00 .00 .00 .00	_
00 .00 .00 .00	
3) PROPELNTS *( 38) .00 .00 .00 .00 1.21 4.04 .0 TOTAL	o .oo
4 2 3 - THIR NUC - WEAFONS - GUIDANCE	
040 041 043 044 045	-
00. 00. 00. 00. 00.	
1) RADAR 1750 4.00 5.00 6.00 .00 .00 .00	
00 15.00 .00 .00 .00	
3) ELCTR DFTC *( 58) .00 .00 2.2 TOTAL 1.65 2.20 11.04 1.65 .00 .00 2.2	4 1.56
O A THITE NILC - MEAPONS - NUC WEAPON	
1.2.4 - INT ROLL 040 041 042 043 044 045 04	
(ANALOR WELL # 20) .00 .00 .00 .00 .00 .00	00.
1) ANALYBEVEL 1 47 00 .00 .00 .00 .00 .00 .00	00.00
2) 125 1100 .00 .00 .00 .00 .00 .00 .00	00.00
3) SF NUL HAT 1	00.00
4) WEAPUNZAIN # 107 .00 .00 .00 .00 .00 .00	00. 00
5) FAB/ASSEME *( 14) .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	oo .oo

## THTR NUC-4 MEDNESDAY 8/20/1980 10:09

1.2.4.2 - THTR N	uc	- WEAPON.	- 2	NUC WEA	PON -	TESTING			_
FACTOR	WT	640	041	042	043	944	045	046	647
1) INSPECTION *(	•- •	.00	.00	.00	.00	.00	.00	.ଡ଼େ	.00
2) HYDRODYNAM *(		.00	.00	.00	.00	.00	.00	.00	, <b>0</b> 0
3: NUC TESTNG *(		.00	.00	.00	.00	.00	.00	. <b>o</b> o	. 00
TOTAL.	30,	.00	.00	.00	.00	.00	.00	.00	.00
1.3 - THTE NUE	- c:	3/1							
FACTOR	WIT	040	041	042	047		045	046	047
	9)	5.00	4.00	6.00	5.00		.00	.00	1.00
21 NAV	10)	3.25	3.75	8.25	3.25		.00	1.00	1.25
3) COMM #0	22)	3.00	5.00	.00	6.00		.00	.00	.00
	39)	2.86	3.57	8.57	2.86		.00	1.14	1.29
5) TARGETING (	20)	1.71	2.14	11.14	1.71		.00	2.29	1.57
IATAL		2.90	3.67	6.89	3.57	. രറ	.00	. 99	1.05
1.3.7 ~ THIE NUC	_	C3/I	- N	AV					
	WT		041	0.42	043		045		047
1 Kapal **	42)	3.00	5.00	6.00	3.00		.00	.00	1.00
FACT PLTEN *	331	6.00	5.00	8.00	6.00		.00	.00	1.00
SEFFETE OFTE A			.00		.00		.00	4.00	2.00
ante		3.25	3.7%	8.25	3.25	. (40	.00	1.00	1.7"
1.3.4 - THIE NU	<u> </u>	C3/T	- 5	THEV					
Fed 100	พา		041	041	043	044	045	044	047
1) RADAR *	487	3.00	5.00	6.00	3.00	.00	,00	.0.	1 00
2) PASV FLIRM *			5.00	8.00	6.00		.00	.00	1.00
* 0140 4TO 14 15			.00	15.00	.00		.00	4.00	2.00
าเกิดเ		2.86	3.57	8.57	2.86	00	.00	1.14	1.29
1.3.5 - THIE NU	_	C3/I	- 1	ARGETIN	G				
FACTOR		046	041	041	043		045	644	047
1 ) 84545 *			5.00	6.00	3.07	.00	.00	. 00	1.00
FARV DITEN +			5.00	6.60	6.00	.00	.00	.66	1.00
FICTE OFTE *			.00	15.00	.00	. 06	.00	4.00	7 00
10740	• •	1.71	2.14	11.14	1.71	.00	.00	2.29	1.57

## COMPLETED DATA SHEET WEDNESDAY 8/20/1980 10:17

ì	NODE		WEIGHT						SCORES 098 053			055
					048	049	050	051	09R	053	054	055
1		THTR NUC	(WT	100)								
1.1	-	PLATFORM	(WT	30)								
1.1.1	-	ENGINES	(WT	63)	0	0	0	8	0	0	0	0
1.1.2	-	AIRFRAMES	(WT		0	0	0	0	1	0	0	0
1.2	-	WEAFONS	(WT	35)								
1.2.1	-	CASNG/MTRS	(WT	24)								
1.2.1.1	-	CNN2	(WT	41)	Ð	O	ဂ	5.	0	0	0	O
1.2.1.2	-	ROCKETS	(WT	41)	0	0	0		0	0	0	0
1.2.1.3	-	BMB/BMBLTS	(WT	18)	0	0	C	5	0	Ç	C	0
1.2.2	-	INTERNALS	(WT	33)	_	_	_		_		_	_
1.2.2.1	-	WARHD/CONV	(WT	40)	0	0	0	12	0	10	-0	-0
1.2.2.2	_	. 42 2.10	(WT	_	8	0	0	0	0	0	35	35
1.2.2.3	-	PROPELNTS	(WT	38)	0	0	0	0	0	0	0	0
1.2.3	_	GUIDANCE	(WT	14)	_	•			_	_		
1.2.3.1	~		(WT	33)	0	5	4	0	Ç	0	11	19
1.2.3.2	-	FASV ELTEN	(WT	11)	0	5	4	0	0	0	11	19
1.2.3.3	•	ELCTE OFT	(WT	56)	0	Ç	9	0	0	0	0	O
1.2.4	-	NUC WEAPON	(WT	28)	_	_						
1.2.4.1	-	ANALZDEVEL	(WT	20)	0	n	C	0	0	0	14	19
1.2.4.2	-	TESTING	(WT	43	_	_	_		_	_	_	
1.2.4.2.1	~	INSFECTION	(WT	11)	Ü	0	0	0	0	0	0	0
1.2.4.2.2	-	HYDRODYNAM	(WT	37)	0	0	0	0	6	0	0	0
1.2.4.2.3	-	NUC TESTNG	(WT	53 :	ō	0	0	0	23	0	0	0
1.2.4.3	~	SE NUC MAT	(WT	7)	0	0	0	0	0	0	0	0
1.2.4.4	-		(WT	16)	0	0	C	0	0	0	Ō	Ç
1.2.4.5		FAR/ASSEME	(WT	14)	0	0	0	0	0	0	0	0
1.3	-	C3/1	(WT	35)	_	_	-			•		
1.3.1	-	EW NAV	(WT	9)	0	2	3	0	0	0	10	17
1.3.2		• • • •	(WT	10)	^	_		^	_	_		4.0
1.3.2.1		RADAR FASV ELTRN	(WT	42)	0	5	4	0	0 0	0	11	19
1.3.2.3			(WT	33) 25)	0	ó	<b>4</b> 9	0	0	ი 0	7.7	0
1.3.3	_			22)				•	-	_	12	20
1.3.3		SURV	(WT	39)	0	0	0	0	0	0	1	20
1.3.4.1	_		(WT		^	2		^	^	^		4.0
1.3.4.1	-	RADAF PASV ELTRN	(WT	48) 24)	0	5	4	0	0	0	11	19 19
1.3.4.2	~		(WT	24) 29)	0	2 0	4 9	0	0	0	11	17
1.3.4.3	_	ELCTR OFTC	(WT	20)	(-)	()	7	()	Ø	()	0	U
1.3.5	_	RADAR	(WT	29)	^	~	4	•	^	^	11	19
1.3.5.1	_	PASV ELTRN	(WT	14)	0	5	4	0	0	ი 0	11	17
1.3.5.2	_	ELCTR OFTC	(WI	57)	0	6	9	0	0	0	11	17
1.3.3.3	_	ELLIK UTTL	( 144 )	5()	v	V	7	O	O	U	O	v

#### THTR NUC-5 WEDNESDAY 8/20/1980 10:16

	- THTR NUC									
,	FACTOR	WT	048	049	050	051	<b>09</b> 8	053	054	055
4.)		30)	.00	.00	.00	5.00	.39	.00	.00	.00
		35)	.57	.12	.96	2.10	1.75	1.35	3.98	4.77
_		35)	.00	1.05	4.26	.00	.00	.00	8.40	14.32
•	TOTAL		.20	.42	1.84	2.22	.72	.47	4.36	6.73
			•=•	•			•	•		
1.1			ATFORM			251	000	053	054	055
	FACTOR	WT	048	049	050	051	989	053		.00
		63)	.00	.00	.00	8.00		. 00 . 00	.00 .00	.00
20		38)	.00	.00	.00	.06	1.00	-		.00
	TOTAL		.00	.00	.00	5.00	.38	.00	.00	.00
1.2			EAFONS							054
	FACTOR	WT	048	049	050	051	098	053	054	055
	-	24)	.00	.00	.00	2.00	.00	.00	.00	- 00
		33)		.00	.00	4.85	.00	4.04	7.45 4.84	7.45 8.35
_		14)	.00	.83	6.80	.00	.00	-		3.89
4)		28)	.00	.00	-00	.00	6.18	.00	2.66 3.98	4.77
	TOTAL		.57	. 1.7	.9ć.	2.10	1.75	1.35	5. 411	4.77
	.1 - THIF NIE				LING BI					
	FACTOR	WT		049				053	054	02,
		41)	.00	.00	.06	5.60	.00	.00	.00	. 66
		41)	.00	.00		2.00	.00	.00	.00	.00
3)	PMR/RMHITS *C	181	-	.00 .00	.06	2.66	.00	.00	.00	.00
	TOTAL		.00	.00	.00	2.66	.00	.00	.00	. 00
1.2	.2 - THIR NUC				NTERNAL.					
	FACTOR	WT	048	049	050	051	<b>09</b> 8			055
	WARHD/CONV ★C			.00		12.00	.00		.00	
	FUZING *		8.00	.00	.00	.00	.00	.00	35.00	35.00
3)	FROFELNIS +C	38)	.00	.00		.00	.00	.00	.00	.00
	TOTAL		1.70	. <b>0</b> G	.04	4.85	.00	4.04	7.45	7.45
1.2	.3 - THIR NUC				JIDANCE					
	FACTOR	W.T			05÷	051	098	053	054	055
		<b>3</b> 3)		2.00		.00	.00	.00	11.00	19.66
	PASV ELTRN *(		.00		4.00	.00	. <b>0</b> 0	. <b>0</b> ი	11.00	19.00
3)	ELCTR OPTC *(	561	.00	.00	9.00	.00	.00	.00	.00	.09
	TOTAL		.00	.88	6.80	.00	. <b>o</b> o	. 0 ი	4.84	8.36
1.2	.4 - THTR NUC		WEAF DNS		JC WEAF					
	FACTOR	WT		049	050	051	<b>09</b> 8	053	054	
	ANAL/DEVEL #(	-	.00	.00	.00	.00	.00	.00	14.00	19.00
		43		.00	.00	.00	14.32	.00		.00
	SF NUC MAT *:		.00	.00		.00	.00	.00	.00	.00
	WEAFONZATN # (		.00	.00	.00	.06	.00	.00	.00	.00
2)	FAB ASSEME *(	14)	.00	.00	.00	.00	.00	.00	.00	.00
	TOTAL		.00	.00	.00	.00	6.18	.00	2.84	3.8२

#### THTR NUC-5 MEDNESDAY 8/20/1980 10:17

4.2	.4.2 - THTR NO	IC -	WEAFONS	-	NUC WEA	PON -	TESTING			
	FACTOR	шT	048	049		051		053	054	05°,
•	INSPECTION *(	11)	.00	.00	.00	.00	.00	.00	.00	.00
	HYDRODYNAM *(		.00	.00	.00	.00		.00	.00	.00
	NUC TESTNG *(		.00	.00	.00	.00		.00	<b>.e</b> n	.00
σ,	TOTAL	30.	.00	.00	.00	.00		.00	.00	. 00
1.3	- THTR NUC	- C3/	1							
	FACTOR	₩T	048	049	050	051	<b>09</b> 8	053	054	055
10	EW *C	9)	.00	2.00	3.00	.00	.00	.00	10.00	17.00
2)	NAV (	10)	.00	1.50	5.25	.00	. <b>0</b> 0	.00	8.25	14,25
3)	COMm #(	22)	.00	.00	.00	.00	.00	.00	12.00	20.00
4 /	SHEV	39)	. 60	1.47	5,43	.00	.00	.00	7,86	13.57
5,	TARGETING (	20)	.00	.85	6.80	,00	.00	, <b>0</b> 0	4.71	R.14
	TOTAL		.00	1.05	4.26	.00	. 00	.00	R.40	14.32
1.3	OUR STHIR SUC	- r	3/I	- N	AV					
	FACTOR	u/T			050	054	065	のちる	05.4	05.5
1.7	RADAE # (	4.7	.00	2.00	4 06	.00	.00	.00	11.00	19.00
;·)	PASV ELTRN # (	33,	.06	2.00		. (66)	.00	.00	11.00	19,60
	ELOTE DETC *C		. (11	, 600	ବ. ୦୯	.00	.00	.00	.00	.00
	TOTAL.		.00	1.50	1.25	.06	.00	.00	Ft. 7"	14.25
1.3	OUN ATHT - 4.	~ C	3/1	- 2	U6.∀					
	FACTOR	w۲		049	(i.s. C	054	098	05.5	054	055
1)		48)	.00	2.00	4,00	.00	.00	.00	11.05	19,00
	PASV FLTRN *		.00		4.00	.05	.00	.00	11.00	19.00
	ELCTR OFTE **		.00	.00	9.00	.00	.66	.00	. 60	.00
	TOTAL.		.00	1.43	5.43	.06	.00	.00	7.86	13.57
1.3	,5 - THTR NUC	~ C	3/1	<b>-</b> T	ARGETING	,				
_	FACTOR	WT	048	049	050	05.1	098	053	054	() r r
1)	RADAF #1	29)	.00	2.00	4.00	.00	.00	.00	11.00	19.00
	PASV FLTEN *:		.00	2.00		.00	.00	.00	11.00	19.00
3 -	ELCTR DETC ★C	57)	.00		9,00	.00	.00	.00	.00	.00
	TOTAL		.00	. 816	6.86	.00	.00	.00	4.71	F: . 1 4

#### COMPLETED DATA SHEET WEDNESDAY 8/20/1980 10 25

1	NODE		WEIGHT				SYS					
					099	057	962	063	065	072	075	08.
1		THTR NUC	(WT	100)								
1.1	-	PLATFORM	(WT	30)								
1.1.1	-	ENGINES	(WT		0	0	0	Ç	0	6	0	c
1.1.2	-	AIRFRAMES	(WT		0	0	5	0	0	14	0	0
1.2		WEAFON.	(WT	35)								
1.2.1		CASNG/MTRS	(WT	24)								
1.2.1.1		CUNZ	(WT	41)	0	O	0	C	O	r	Ç	C
1.2.1.2		ROCKETS	(WT	41)	0	0	0	ი	O	0	O	O
1.2.1.3		RMB/RMBI TS	(WT	18)	0	0	e	O	0	Ç	C	C
1.2.2		INTERNALS	(WT	33)		_	_	_	_	_	_	_
1.2.2.1	-		(WT	40)	24	4	0	0	0	Ç	0	ç
1.2.2.2		FUZING	(WT	21)	0	0	0	0	12	0	0	0
1.2.2.3		PROPELNTS	(WT	38)	32	0	0	0	C.	r	C	14
1.2.3		GUIDAN(E	(WT	14)	_				_	_	_	_
1.2.3.1		RADAL	(MJ	33	0	(i	12	1		Ç		Ç
1.2.3.2		PASV FLTFN	(WT	11)	0	Ċ	1.7	1	3	^		0
1.2.3.3	-	• • • • • • • • • • • • • • • • • • • •	(M)	50.	C	Ç	28	2'	0	0	C	O
1.2.4	-	NUC MEAFON	(WY	287	_	_		_	_			
1.7.4.1	-	ANGL /DEVEL	(Light	501	0	r	(,	r	n	1	2.2	0
1.7.4.7	٠	TETTING	. W₹	43 (			_		_	_		
1.2.4.2.1	-	INTERLITON	(WI	11)	6	(-	Ç	(-	n	0	0	Ċ.
1.1.4.2.2	-	HYDE:OTH NAM	(WT	37 (	0	0	0	0	6	0	O	0
1.1.4.1.3	-	NIF TECTNO	( W T	53)	0	0	23	0	0	0	0	e
1.2.4.3	-		(WT	7 ,	0	0	0	0	Ġ	0	0	0
1.2.4.4		MEREUNTATH	(WT	161	Ç	Ċ	Ç	Ċ.	0	0	Ú	Ç
1.2.4.5		FAR ASSEMB	(WT	14	0	O	0	r	0	0	Û	0
1.3		03/1	(WT	35)		_			_	_	_	_
1.3.1		EW	(WI	9)	O	0	11	1	3	0	2	C
1.3		NAV	( WT	10)					_		_	
1.3.2.1		RADAR	(WT	42)	0	0	12	1	3	0	5	0
1.3.2.2		PASV ELTEN	(WT	37	Ç	6	12	1	3	6	.;	0
1.3.2.3		ELCTE OFT	(WT	25 1	0	0	28	5	0	0	Ó	0
1.3.3		COMM	(WT	55)	O	0	13	0	3	Ú		0
1.3.4		SURV	(WT	39	_	^			-		_	_
1.3.4.1		RATIAL	(WT	48)	0	0	12	1	3	0		v
1.3.4.2	-		(WT	24)	0	0	12	1 5	3	0	5	0
1.3.4.3		ELETE OF TO	(WT	56.)	0	0	្តាន	•'	0	r	()	•
1.3.5		TARGETING	(WT	20)				,	-		^	۶.
1.3.5.1		RADAF	(WT	29)	0	0	12	1	3	6	5	0
1.3.5.2		PASV ELTRN ELCTR OPTO	(WT	14) 57)	0	0	12 28	1 2	3 0	6 0	:	0
1.3.5.3	-	CLUTE OF IL	( W I	() د	()	0	28	~	Q	O	(1)	O

THTR NUC-6	JEDNESDAY 8/2	9/1 <b>98</b> 0	10 25					
2) WEAFONS (	WT 099 30) .00 35) 7.32 35) .00 2.56	057 .00 1.08 .00	062 1.88 4.44 16.11 7.61	063 .00 .22 1.02	965 .00 1.31 2.25 1.25	072 9.00 .06 .00 2.69	075 .00 1.40 1.50 1.02	082 .00 1.79 .00 .62
1.1 - THTR NUC FACTOR 1) ENGINES *( 2) AIRPRAMES *( TOTAL	63) .00	057 .00 .00	062 .00 5.00 1.83	580 00. 00.	065 .00 .00	072 6.00 14.00 9.00	075 .00 .00	087 000 00
TENNATULE C	- WEAPCINE WT 099 2400 33 / 21.96 1400 2006 7.32	057 .06 3.23 .60 .60	060 .00 .00 20,98 5.23 4.46	063 .06 .06 1.54 .00	0.45 2.55 2.55 1.3. 205 1.31	00. 00. 00. 00. 00.	077 07 07 87 4.54 1.44	06.7 69. 5,36 ,69 ,06 1,78
71 THTE NOC FACTOR 1: GUR +1 D: ROCI (TT) +1 3: EMR (MR) TS +0 TOTAL	WT 099 410 .00 410 .00	057 000 000	.00			072 .00 .00 .00 .00	677 .06 .00 .66	082 - 00 - 00 - 00 - 00
*:2:2 - THIE NUF FACTOR > WARHT CONV *: 2 - FUTING *: 3 - PROFFLATS *: TOTAL	WT 099 40) 24.00 21) .00	730 00,00 00,00 00,	.00 .00		065 ,00 12,00 ,00 2,55	072 .66 .66 .00	075 .06 .66 .06	607 ,66 ,66 14.00 5.36
) P.3 - THIE NUC FACTOR )) PADAR *: 2) PASV ELTEN *( 3) FLOTE OPTC *( TOTAL	WT 099 33) .00 11) .00	- 6.0 057 .00 .00 .00	UIDANCF 062 12.00 12.00 28.00 20.96	063 1.00 1.00 2.00 1.56	065 3.00 3.00 .00 1.32	072 .00 .00 .00	075 2.00 2.00 .00 .88	081 .00 .00 .00
1.2.4 - THTR NUC FACTOR 1: ANAL/DEVEL *( 2: TESTING ( 3:) SE NUC MAT *( 4: WEAFONZAIN *( FAE'ASSEME *( TOTAL	WT 099 20) .00 43) .00 7) .00 16) .00	057 .00 .00 .00	.00 12.11 .00	75.0 00.00.00.00.00.00.00.00.00.00.00.00.0	065 .66 2.21 .00 .00	072 1.09 .09 .09 .09	075 22.09 .09 .09 .09 .09	087 .06 .06 .06 .06 .06

# THTR NUC-6 WEDNESDAY 8/20/1980 10 25

	HEADONE	- NUC WEAT	PON - TI	EZZINE			
			063	065	07 <i>2</i>	075	082
FACTOR WI	· · · · · · · · · · · · · · · · · · ·		.00	.00	.ଜନ	.00	.00
1) INSPECTION *( 11)	.00 .00		.00	6.00	.00	.00	.00
2) HYDRODYNAM *( 37)	.00 .00		.00	.00	.00	.00	.00
3) NUC TESTNG *( 53)	.00 .00			2.21	.00	. <del>0</del> 0	.00
TOTAL	.00 .00	12.11	.00	2001	• • • •		
1.3 - THTR NUCC3/I		7 062	963	065	072	075	ดลา
FACTOR . WT	099 05		1.00	3.00	.00	2.00	.00
1) EU *( 9)	.00.		1.25	2.25	.00	1.50	.00
2) NAV (10)	.00 .0		.00	3,00	.00	2.00	, <b>0</b> 0
3) COMM #( 22)	.00 .0	0 13.00		2.14	.00	1.43	.00
4) SURV ( 39)	.00		1.29	1.29	.00	.66	.00
5) TARGETING ( 20)	.000		1.57	2.25	.00	1.50	.00
1016	.00 .0	0 16.11	1.00	والدواد		• • • •	
1.3.2 - THTR NUC - C	3/T -	NAV			077	075	08.1
TATTA WITH	054 05	G80 P	530	06"		2.60	.00
Company Control of the Control of th	.67	6 12.00	1 00	3.00	.00	2.00	.00
		12.00	1.00	3.00	.00		00
PASV ELTEN *1 331	• •	78,06	2.00	.00	.00	1.50	,00
RECTRIBETE #C 751 TOTAL		16.00	1.25	7.75	,00	1	•••••
THE MICH TO	·ছ/1 ·	- SHEV				. 75	087
1.3.4 - THTR NUC - C		57 06°	063	065	072	075	.00
FACTOR WT		00 12.00	1.00	3.00	.00	2.00	.00
() RADAR *( 48)		06 12.00	1.00	3.00	.00	2.00	. 00
2) PASV LLIEN +( 24)	• 1	00 28.00	2.00	.00	.00	.00	
3 ELOTA DETO +( 29) TOTAL	•	00 16.57	1.29	2.14	, <b>0</b> 0	1.43	.00
1.3.5 - THIR NUT C		- TARGETIA	√G _		072	675	687
FACTOR WIT	0.95 0	57 662	063	07.5	.00	2,00	00
1 KADAF *( 29)	.00 .	00 12.00	1.00	3.00	-	2.00	.00
2) PASV ELTRN +( 14)		00 12.00	1.00	3.00	.00	.00	.00
3) ELCTE OFTE #4 57)		00 28.00	2.00	.00	.00	_	.00
TOTAL		00 21.14	1.57	1.29	.00	.86	• • • • • • • • • • • • • • • • • • • •

## COMPLETED DATA SHEET WEDNESDAY 8/20/1980 10:30

NODE			WEIGHT		<b>68</b> 0	081	2Y2 870		5C01 084		064	077
Ţ		THTE NUC	(WT	100)								
1.1		FLATFORM	(WT.	-								
1.1.1	_	ENGINES	(WT	63)	0	0	0	0	0	0	0	0
1.1.2	_		CHT		ō	0	0	Ō	0	0	0	Ó
1.2	_	WEAF ONS	(WT		_	-		-	-			
1.2.1	_	CASNG/MTRS	CWT	24)								
1.2.1.1		GUNS	(WT	41)	0	0	0	0	0	0	0	0
1.2.1.2	-	ROCKETS	(WT	41)	0	9	0	0	0	0	0	0
1.2 1.3	-	RMR/RMRLIS	(WT	18)	0	0	0	C	0	0	0	0
1.7.2	-	INTERNALS	(WT	33)								
1 2.2.1	-	WARHD/CONV	(IJT	40)	0	0	(·	0	0	0	0	0
1.7.3.2	-		(WT	21)	0	0	0	0	0	O	0	Ò
1	-	FROFELATS	(WT	380	38	1 81	C	C	0	0	0	6
1.1.3		GUIDANCE	(WT	14)								
1		PADAR	(WT	33)	C	0	ņ	(ı	6	0	C	O
13.2	*	PACY ELTEN	(WT	11)	0	(·	C	6	0	0	0	0
+.2.3.3	٠	ELCIE OFTC	( W T	56)	(1	$\boldsymbol{o}$	C	0	O	O	0	O
1.7.4	-	NUC WEAFON	(WT	280								
1 4 . 1	-	ANGE DE VEL	(WT	20	$\alpha$		4	::	1 អ	C	C	O
1.3.4	-	TECTING	(WT	4:								
1.2.4.2.1		INCERUTION	(WT	11)	C	C	O	C	0	÷. ∠	E,	2.3
1.7.4.	٠.	HYDRODYNAM	(WT	37	O.	Ü	Ó	0	0	0	0	O
14.7.8		MILC TESTME	(WT	<b>5.3</b> )	•	Õ	C	0	0	0	C	Ç
14.3	-		(WT	7)	G	Ģ	0	9	0	6	0	O
1 4.4		WEAFONZATN	(WT	14.7	Ċ	0	O	0	0	0	0	O
1.2.4.1	-		(WT	14.	0	0	0	0	O	0	0	(,
1.3	•	03.1	(WT	35, 1		_	_		_	_		_
1.3.1	_	EW	(WT	<b>5</b> )	0	0	0	0	0	0	0	0
1.3.2	•-	NAV	(WT	10)	_	_	_	_	_	_	_	
1.3.2.1	-		(WT	42)	0	0	0	0	0	Ø	0	0
1.3.2.2	-	PASV FLTEN	(WT	33)	6	Ö	0	0	0	0	0	0
1.3.2.3	~	ELCTR OPTO	(WT	251	0	0	0	0	0	0	0	0
1.3.3	~	COMM	(WT	227	0	0	0	0	0	()	0	0
1.3.4	-	SURV	(WT	39)	_	_	^	^	^	_	_	_
1.3.4.1	-	RADAF	(WT	481	Ç	0	6	Ç	0	0	Ç	0
1.3.4.7 1.3.4.3	-	PASV ELTRN ELCTH OFTC	(WT	24) 29)	0	0	0	0	0	0 0	0	0
1.3.5	~	TARGETING	(WT	20)	O	()	O	0	O	(-)	0	0
1.3.5.1			(W)	29)	0	0	0	^	^	^	^	^
1.3.5.2	_	FASV ELTRN	(WT	14)	-	-		0	0	0	0	0
1.3.5.3	_		(WI	57)	0	0	0	0	0	0	0 0	0 0
1.3.3.3	_	ELLIN UPIL	( W I						(4)	(a)	Ð	Çı

## THTR NUC-7 WEDNESDAY 8/20/1980 10:30

1 - THTR NUC									
FACTOR	ЫT	<b>08</b> 0	081	073	083	084	027	064	077
	30)	.00	.00	.00	.00	.00	.00	.00	.00
		4.60	2.30	.23					
<b>-</b>	35)				1.28	1.04	.30	.00	.30
	35)	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL		1.60	.80	.08	.45	.36	.10	.00	.10
	_								
1.1 - THTR NUC		LATFORM							
FACTOR	WT	<b>08</b> 0	081	073	683	084	027	064	077
	63)	.00	.on	.00	.00	. <b>೧</b> ೧	.00	.00	.00
2) AIRFRAMES +(	380	.00	.00	.06	<b>.0</b> 0	, იი	. (10	.00	. 00
TOTAL		.00	.00	. 0.5	.00	0.0	00	.00	9.5
4 C) THE MIC		E 45.534.5							
		EAFONS	0614	A 73 **	007	6.61.4			
FACTOR	W٦	086	081	073	083	084	077	064	077
	24	. 00	.00	.00	.05	.00	. 0 -	.00	.00
2) INTERNALC (	33)	13.75	6.85	.00	.00	.00	, <b>೧</b> ೧	.00	.00
3) GHIDANEF (	14	, n ·	.00	. 60	.01	.60	.00	.00	. 00
4) NHE WEAFOR (	٠٤٠,	. (11)	· 000	. e :·	4	3.68	1	.73	1.05
TOTA:		4 60	2.30	. 73	1.74	1.04	.30	.06	.30
				- •			•	·	
1.2.1 - THIR NUI				ASNG MT					
FACTOR	WΤ	ØB∴	081	073	083	084	027	064	077
<ul> <li>4.) @NV2 ★ €</li> </ul>	41 1	.00	. or	. იი	.00	.00	.00	.00	.00
2) ROCKETS ★(	41)	.00	.00	.00	.00	.00	.00	.00	.00
3) HMB/EMBLIS *(	180	.00		.00	.06	.66	.00	.00	.00
TOTAL		.00	.00	.00	.00	.00	.00	.00	.00
		•				• •			•
1.2.2 ~ THIR NUT	-	WEAFINE	- Ji	NTFFNAL	:				
FACTOR	₩T	08€	081	073	7.80	084	027	064	077
1) WARHD/CONV *(	400	.00	.00	.00	.00	.00	.00	.00	.00
2) FUZING *(	21)	.00	.00	.00	.00	.00	.00	.00	. 00
3) PROPELNTS #(	380	36.00	18.00	.00	.00	.00	.00	.00	.00
TOTAL	-	13.79	6.89	.00	.00	.00	.00	.00	.00
7 27 7 7 7 2						• • •		• •	• • •
1.2.3 - THTF NUC	-	MEARIUNE	- (FI	JTFANCE					
FACTOR	WT	080	០ខា	073	083	084	のこて	064	077
1.) RADAR # (	33)	.00	.00	.00	.00	.00	.00	.00	.00
2) PASV ELTRN #(	11)	.00	.00	.00	.00	.00	.00	.00	.00
3) ELCTP OPTC *(		.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	20,	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL.		.00	.00	.00	.00	.00	.00	. (717	. 0.7
1.2.4 - THIE NUC		WE AF ON S		TC MEAL					
FACTOR	WT	<b>080</b>	081	073	083	084	027	064	077
1) ANAL/DEVEL *(	20)	.00	.00	4.00	22.00	18.00	. 00	.00	.00
2) TESTING (	43)	.00	.00	.00	.00	.00	2.40	.53	2.42
3) SF NUC MAT #(	7)	.00	.00	.00	.00	.00	.00	.00	.00
4) WEAFONZATH *(		.00	.00	.00	.00	.00	.00	.00	.00
5) FAR ASSEME +(	_	.00	.00	.00	00	.00	.00	.00	.00
TOTAL	• /	.00	.00	.82	4.50		1.05	.23	1.05
TUTHE		.00	.00	· 5 £	4.00	3.68	1.00	5	1.05

 $(x_{ij},x_{ij})_{ij} \in \mathbb{R}^{n} \times \mathbb{R}^{n}$ 

THTR NUC-7 WEDNESDAY 8/20/1980 10 30

4 2	.4.2 - THTR NO	ic -	WEAF ONS	-	NUC WEAT	PON -	TESTING			
1.4		⊌₹	980	081	073	083	084	027	064	077
	FACTOR INSPECTION *C		.00	.00	.00	.00	.00	23.00	5.00	5.3 DO
1)	HYDRODYNAM *C	77)	.00	.00	.00	.00	.00	.00	.00	.00
2)	NUC TESTNG #C	57)	.00	.00	.00	.00	.00	200	.00	.00
3)	TOTAL	337	.00	.00	.00	.00	.00	2.42	. e	~ A~
1 7	- THTE NUC	- 03/	/I							
, , ,	FACTOR	WT	086	081	073	083	084	0.27	064	677
•		٠,	.00	.00	.00	.00	.00	.00	, 00	6,000
	4. **	160	.00	.00	.00	.00	.00	.00	.00	. (16)
		22	.00	.00	.00	.00	.00	.00	.00	00
	•	30.	.00	.00	.00	.00	.o.o	.00	.00	.00
	* · · · · · · ·	20)	.00	.00	.00	.00	.00	.00	.00	. 00
,	101+1		,67	.00	.00	.00	.00	.00	. (10	, Cris
, 7	THIE NIT	- 1	C3. I	- N	#¥					
	FACTOR:	647	068	ov.	0.73	68	OSA	0.0	(1, ,2	677
	FAIAL **		. 60	.01	.06	.00		. (**	(h)	Ç.
	TACK FLIFT **		· (a)	ric	. 6	.0 -	, OH	. 60	`U···	.000
	ing vig time of -picγc obti∈ vi	-11	700	. 67	ri.	. (***	. 0.	.0	£47	in the
	31.74	•	តែក	. "	ř.	. (			10%	A.
,	LA THIR NUT	_	63.1		THE .					
,	TACTOR	เมา	67.	(1501	ムラス	663	05.4	(C)	Ozid	675
٠.		4:.	500	.07	.00	. (0)	$\alpha$	1,16	(10)	r.:.
	• MAT 11 7034		700	100	, (50)	. 66		60	1000	1.49
	eintroffc ∗.	- 0	. 66	(11)	.00	. 6€	. 0 ^		Oct	ôo.
,	TOTAL	-	.00	.00	. 66	.66	. 6964	, te	6,6,	(
, -	s,5 ~ THIE NUE		63 (	- 1	TARGETING					
	TENTO		050	06.1	073	<b>(197</b> )	ሰይል	651	Ç 4	627
1			.06	.00	. 07	.00		.6.	Ď+-	111
	ត្រូវការ - ស្រាប់ ស្រាក់ស *:		.06	, or	.00	.00	.66	.66	.00	
	ELOTE DETO *		.01	.01	.00	.00	.00	.000	,00	
•	7-diál	- '	165	.oo	. 66	.00	.00	.66	.00	, 411

### COMPLETED DATA SHEET WEDNESDAY 8/20/1980 10:34

NODE			WEI	GHT	960	029	2 Y Z 2 A O		SCOF 070		071	087
1	-	THTR NUC		100)								
1.1	-	FLATFORM	(WT.									
1.1.1	-	ENGINES	(WT.		0	0	0	0	ဂ	0	0	0
1.1.2	-	AIRFRAMES	(WT:		0	0	0	0	0	0	0	0
1.2	-	ME AF ON S	(WT									
1.2.1	-	CASNG/MTRS	(WT	24)								
1.2.1.1	-		(WT	41)	0	0	0	C	0	ဂ	6	ņ
1.2.1.2	-	ROCKETS	(WT	41)	0	0	0	0	0	0	0	0
1.2.1.3	-	BMB/BMBLTS	(WT	18)	0	0	6	0	e	0	C	C
1.2.2	-	INTERNALS	(WT	33)			_		_	_	_	_
1.2.2.1	-	WARHD/CONV	(WT	40)	C	ဂ	Ç	C	Ö	0	0	0
1.2.2.2	-	FUZING	(WT	21)	0	0	O	0	0	0	0	0
1.2.2.3	-	PROPELNTS	(WT	38	O	0	Ċ.	C	0	Ç	O	n
1.2.3	-	GUTDANCE	(WT	14)								
1.2.3.1	-	RADAF	(WT	<b>3</b> 3)	(1	O	Ç	0	Ç	0	0	ი
1.2.3.2	-	PASV ELTRN	(WT	11)	0	0	O	0	0	O	0	0
1.2.3.3	-	ELETH OFFI	(WT	501	6	C	0	0	Ç	0	O	0
1.2.4	-	NUC WEAFOR	CWT	387								
1.2.4.1	-	ANAL (DEVEL	(W1	200	0	C	r	C	O	0	C	0
1.2.4.2	-	TESTING	(WT	431								
1.2.4.2.1	-	INSERTION	(WI)	11)	1 4	Ē.	0	0	0	0	0	0
1.2.4.2.2	-	HYDRODYNAM	(WY	<b>3</b> 7)	0	0	6	6	18	24	15	- 6
1.2.4.2.3	-	NUC TESTNG	(WT	53)	O	(1	0	0	C.	C	0	0
1.2.4.3	-	TAM SUN 92	(WT	7)	0	0	O	0	0	0	0	0
1.2.4.4			(W)	160	O	(·	()	0	0	0	0	0
1.2.4.5	-	FAR/ASSEMB	(WT	14)	0	0	0	0	0	0	0	0
1.3	-	C3 / 1	(WT	351								
1.3.1	-	EW	(WT	9)	0	0	0	0	0	0	0	0
1.3.2	-	NAV	(WT	10)								
1.3.2.1	-		(WT	42)	0	0	0	0	0	0	0	0
1.3.2.2	•	PASV ELTEN	(WT	33)	0	0	0	0	0	0	0	0
1.3.2.3	-	ELCTR OFTC	(WT	25)	0	C	O	0	0	0	0	0
1.3.3	-	CDMM	(W)	22)	0	0	G	0	0	0	0	0
1.3.4	-	SURV	(WT	39)								
1.3.4.1	-	RADAF	(WT	48)	0	C)	C	0	C	C	0	O
1.3.4.2	-	PASV ELTRN	(WT	24)	0	0	0	0	C	0	0	0
1.3.4.3	-	ELCTH OPIC	(WT	29)	0	0	0	0	0	0	0	0
1.3.5	-	TARGETING	(WT	20)								
1.3.5.1	-	RADAR	(WT	29)	0	0	0	0	O	0	0	0
1.3.5.2	_	FASV ELTRN	(WT	14)	0	0	0	O	0	0	0	0
1.3.5.3	-	ELCTR OFTC	(WT	57)	0	0	0	0	0	0	0	0

### THTR NUC-8 WEDNESDAY 8/20/1980 10:34

1 .	- THTR NUC									
'	FACTOR	WT	960	029	966	067	970	059	071	087
4.5		30)	.00	.00	.00	.00	.00	.00	.00	.60
		35)	.18	.06	.27	.27	.81	1.08	.68	.27
		35)	.00	.00	.00	.00	.00	.00	.00	.00
3,	TOTAL	357	.06	.02	.09	.09	.28	.38	.24	.09
	TOTAL		.00	.02	, 07	.07	1 20	.30	447	.07
1.1	- THTR NUC	- F1	LATEDRM							
	FACTOR .	WT	060	029	066	067	070	059	071	087
1)	ENGINES #(	63)	.00	.00	.00	.00	.00	.00	.00	. <b>0</b> 0
2)	AIRFRAMES +	360	.00	.00	.00	.00	.00	, O (i	.00	.00
	TOTAL		.00	.00	.00	.00	.00	.00	.00	.00
	*		~							
1			FAFONS							
	FACTOR	W٦	969	058	066	067	070	05.9	071	087
	_	24)	.00	.00	.00	.00	.00	.00	.00	.00
		33)	.00	.00	.00	.00	.00	.00	.00	.00
3 >		141	.00	.00	.e≏	.00	.00	.0∩	.00	. 00
4)	NUC WEAPON (	28)	.64	. 27	.95	. 5'	೧.8⊹	3.62	2.30	, <b>9</b> °.
	TOTAL		.18	.05	.27	.27	.81	1.08	. 68	. : :
1.2	.ו - דאדה אטר	_	ME AFON:	- (4	ASNG MTE					
	FACTOR	ыT	000	0.25	060	067	070	059	071	087
1)		41)	.00	.00	.00	.00	.00	.00	.00	.00
		41)	.00	.00	.00	.00	.00	.00	.00	00
	PMR/PMRLTS *C		.00	.00	.00	.00	.00	.00	.00	.00
J /	TOTAL	10,	.06	.0	.00	.06	.00	0	.00	00
			• •	• ••	• • •	• •	• •	• .	• •	•
	O THE MIS		HE ALONE							
1	.2 - THIR NUC			-	NTFRNAL!					
	FACTOR	WΤ	<b>0</b> 60	029	066	067	070	059	071	0R7
	WARHD/CONV ★(		.00	.00	.00	.00	.00	.00	.00	.00
		21)	.00	.00	.00	-00	.00	.00	.00	. 00
31	FROFFLNTS *	38)	.00	.00	.00	.00	.00	.00	.00	.00
	TOTAL		.00	.00	.00	.00	.00	.00	.00	.00
1.2	.3 - THIR NUC	-	WEAFONE	- (.)	UIDANCE					
	FACTOR	WT	060	029	066	730	070	059	071	087
1)	FADAF # (	33)	.00	.00	.00	.00	.00	.00	.00	.00
2)	FASV ELTRN AL	11)	.00	.00	.00	.00	.00	. 00	.00	.00
	ELCTR OFTC *:		.00	.00	.00	.00	.00	.00	.00	.00
	TOTAL		.00	.00	.00	.00	.00	.00	.00	.00
			•		• -					
	A - THITE MILE		HEADONE	_ 111	UC WEAF	381				
'سما	.4 - THTF NUC FACTOR	₩T.	WEAFONS 060	029	UL WEAPI 066	ەر 967	079	059	071	087
1)	ANAL/DEVEL # C		.00	.00	.00	.00	.00	.00	.00	.00
		43)	1.47	.53	2.21	2.21	6.63	8.84	5.53	2.21
_	SF NUC MAT +C	7)	.00	.00	.00	.00	.00	.00	.00	.00
	WEAFONZATH #1		.00	.00	.00	.00	.00	.00	.00	.00
	FAB/ASSEME #(		.00	.00	.00	.00	.00	.00	.00	. 60
ונ	TOTAL	14)		.23	_	.95		3.82		95
	TOTAL		.64	د نه .	. 95	. 7 )	2.86	3.0.	2.39	. 7

# THTE NUC-8 MEDNESDAY 8/20/1980 10:34

1)	.4.2 - THTR NU FACTOR INSPECTION *( HYDRODYNAM *( NUC TESTNG *( TOTAL	พ1 11) 37)	- WEAFON. 969 14.00 .00 .00	029 5.00 .00 .00 .00	NUC WEAT 966 .00 6.00 .00 2.21	PDN - 1 067 .00 6.00 .00	070 070 000 18.00 00 6.63	059 .00 24.00 .00 8.84	071 .00 15.00 .00 5.53	087 .00 6.00 .00 2.21
4 7	~ THTE: NUC	- c:	3/1		<b>.</b>	067	970	059	071	087
,	FACTOR	WT	960	658	966	.00	.00	.00	ຸ້ຄວ	. ea
1 3	EN *(	9)	.00	.00	.00 .00	.00	.00	,00	.00	.00
20	[46] 6	10)	.00	.00	.00	,00	.00	.00	, 00	.00
3 )		22)	.00	.00 00.	.00	.00	.00	.00	.00	.00
		34,	.00	.00	.00	.00	.00	.00	.00	.00
Ε.	TARGETING ( TOTAL	20.	.00	.00	.00	.00	.00	.00	.00	.იი
, ,	THIE NIC	_	03/1	- 1			070	೧೯೪	071	<b>6</b> 87
'	FACTOR	พา	ዕፅር	650	066	067	• •	0.0	.00	.00
,	FATIGHT #1	42)		.00	.00	.00 .00	- · · · · ·	<b>.0</b> 0	.00	.00
<u>-</u> .	PACV TITEN **	33)	.00	.00	.00	.00.	-	06	.00	.00
7	- πιστε θετά ** Τάτα:	55.1	.00 .00	. 00 . 00	.00 .00	,00 ,00		.00	.00	.00
	5.4 - THIR NUC	-	C3/I	_	SURV			854	071	097
1	is a production of the second	шΤ	067	ひごや		067		ე59 , <b>ე</b> ი	.00	.00
		483	.00	.00		.00		.00		.00
	S PACE FLITTEN AS			.00		.00		.00		.00
•	FOLCTS DETC *:	. 29:	.00	.00		.00 .00		.00		.00
	TOTAL		.00	.00	.00	.00	, ,,,,,	• • •		
i	THE NITE	r .	- 03/1		TARGETIN	ic,	7 070	ინნ	071	<b>687</b>
٠.	FACTOR	WIT	060	しこと		780 90.		•		.00
1	- RADAF *	( 29	.00	.00		.00		-	* *	.00
	O FASS ELTRN *	€ 14	.00	.00		.00				.00
-	* OTAN ATOLA	€ 57	00.	.00		.00				.00

# COMPLETED DATA SHEET WEDNESDAY 8/20/1980 10:37

086 090 023 096 100 101	102 01	4
1 - THTR NUC (WT.100)		
1.1 - PLATFORM (WT 30)		
1.1.1 - ENGINES (WT 63) 0 0 0 0 0		Ú
1.1.2 - AIRFRAMES (WT 38) 0 0 0 0 0	o	17
1.2 - WEAPONS (WT 35)		
1.2.1 - CACNG/MTFC (WT 24)		
1.2.1.1 - GUN. (W) 41) 0 0 0 0 0 0		
-1.2.1.2 - ROCKETS (WT 41) 0 0 0 0 0 0		Ö
-1.2.1.3 - BMB/BMFLTC (WT 18) - 0 0 0 0 0 6 6 6	• •	0
1.D.D - INTERNALD (WT 33)		
- 1.2.2.1 $-$ WARRESTONS (WY 46) $-$ 6 $-$ 7 $-$ 8 $-$ 8 $-$ 8 $-$ 8 $-$ 8 $-$ 8 $-$ 9		1 -
$-4.22.77.77$ $\sim$ FURTHER CONT. $74\%$ $-0.09$ $-0.09$ $-0.09$ $-0.09$	• "	
-1.2.2.3 · PROPERMIT : - W. S. S	• • •	٠.
1.2.7 - GUIDAUEL (WT 14)		
$-1/2.3.4$ $\sim$ PADAF $\sim$ CW1 $33$ $\sim$ $0$ $0$ $0$ $0$ $0$		٠,
IN COUNTY OF PAGN FILTER ONE OF THE OF THE OF THE OF THE OF		
-4.2.3.3 . Firth ofth (W) $56%$ , $6.0%$ , $6.0%$ , $6.0%$		•
1.2.4 - NIEC WEAPON (WT 28)		
THE PROPERTY OF ANALYTICATE AND THE SECOND OF THE PROPERTY OF	• .	13
1.2.4.7 · TENTING - FWY 43		
TO DIALDING INTERSTION ONE Of the Commission of		• •
-1.7.4.7.7 - Hideodianam cut $-37$ - $-15$ - $0$ - $0$ - $0$ - $0$ - $0$ - $0$	-	Û
THE PLACES A MILE TRATME ONC. 590 FOR THE RESIDENCE A		۲,
$-4.7.4.7$ $\pm$ SP NHC MAT (W) $\pm$ 70 $\pm$ 6 $\pm$		٠.
-1.7.4.4 . A WEADDRIATR HWY LAST $-0.00$ , $0.00$ , $0.00$ , $0.00$		•
-1.0.4.5 - FAR ACCEME (NT 14) - 0 - 0 - 0 - 0 - 0 - 0	0 0	٠,
1.3 (4)		
-1.3.1 — FW (W) 9/ 0/0/0/0/0	Ú.	G
1.3.7 - NAV (WT 10)		
1.3.2.1 - RAPAK (WT 42) 0 0 0 0 0 0	• • •	6
TILBERT - PASY FITAN (NT 33) O O O O O		0
1.3.2.7 - FLETH DETC (WT -25) - 0 - 0 - 0 - 0 - 0 - 0		1
-1.3.7 - COMM (NT 20) 0 0 0 0 0 0	74	۲.
1.3.4 - JURY (WT 39)		
- 1.3.4.1 - FADAP (WT 48) - 6 - 6 - 6 - 6 - 6	C.	Ó
1.3.4.2 - PASV FLTRN (WT 24) - 0 - 0 - 0 - 0 - 0		$\epsilon_{c}$
- 1.3.4.5 $-$ 5. Fights detail (by the $-$ 0	Ċ.	۲.
1.3.5 - TARRETING (NT 20)		
-1.3.5.1 - RADAF (NT 29) 0 0 0 0 0 0		r,
1.3.5.2 - PASV FLTRN (WT 14) 0 0 0 0 0 0	•	0
1.3.5.3 - ELCTR DETC (WT 57) 0 0 0 0 0 0	0	Ç.

THTR NUC-9	WEDNE.	SDAY 8/20	/1980 1	0:37					
1 - THTP NUC FACTOR 1/ PLATFORM 2) WEAPONS 3/ C3/I TOTAL	WT ( 30) ( 35) ( 35)	086 .00 .68 .00	090 .00 .32 .00	023 .00 .58 .00	096 .00 .58 .00	100 .00 1.93 .00 .68	101 .00 1.93 .00 .68	102 .00 4.51 .00 1.58	014 .00 .93 .00
1.1 - THTR NUC FACTOR 1) ENGINES 2) ALFERAMES TOTAL	₩T #( 63)	ATFORM 084 .00 .00	096 .00 .00	023 .00 .00	.00 .00 .00	100 .05 .06	101 -00 -00 -00	102 .00 .00 .00	014 .00 .00 .00
FACTOR FACTOR FACTOR TO CACHG (MTRC D) INTERNALS FOR GRITHANCE FOR MEAPON TOTAL	ШТ ( 24) ( 33) ( 14)	086 .00 .00 .00 .00 2.39	090 .00 .00 .00 .00	023 .00 .00 .00 .00 2.05	097 00 00 00 205 205	100 .00 .00 .00 28.3 1.93	161 .00 .00 .00 6.82 1.93	100 .00 .00 .00 15.91 4.51	014 .00 .00 .00 .00 3.27 .93
5.2.5 - THIR FACTOR 1) GUND 2: ROCKETT 3: EMB RMB! TS TOTAL	₩T +(41) +(41)	**************************************	090 .00 .00 .00 .00	ATM 200 800 00 00 00 00	096 .06 .06 .66	100 .00 .00 .00	101 .00 .00 .00	102 .00 .06 .06	014 .00 .00 .00
1 0.0 - THIR FACTOR 1) WARHT CONV 2) FUTING 3) PROFICNIS TOTAL	₩T ( *( 40) *) 21:	ამ <b>ი</b> იი. იი.	~ 18 090 .00 .00 .00	023 .00 .06 .06 .06	096 .00 .00 .00	100 .00 .00 .00	101 .00 .00 .00	102 ,06 ,00 ,06	014 ,66 ,06 ,06 ,06
1.0.3 THTR FACTOR 1) RADAR 2: PASV FLTR 3: ELCTR OFT TOTAL	WT (₹33 ) ★ (11 ) # (	00. 00.	- (1 090 .00 .00 .00	1)MAGIE 62, 00. 00. 00.	096 .00 .00 .00	100 .00 .00 .00	101 .00 .00 .00	107 .00 .00 .00	014 .00 .00 .00
1.2.4 - THIR FACTOR 1) ANAL/PEVE 2) TESTING 3) SP NUC MA 4) WEAPONZAT 5) FAB. ASSEM TOTAL	WT L *( 20) ( 43) T *( 7 N *( 16)	086 .00 5.53 .00 .00	- N 090 .00 2.63 .00 .00	UC WEAF 023 .00 4.74 .00 .00 2.05	096 .00 4.74 .00 .00	100 .00 15.79 .00 .00 .00	101 .00 .00 100.00 .00 .00 6.82	107 .00 .00 .00 100.00 .00	914 .90 .90 .90 .90 24.00 3.27

# THTR NUC-9 WEDNESDAY 8/20/1980 10:37

1)	4.2 - THTE NO FACTOR INSPECTION *( HYDRODYNAM *( NUC TESTNG *( TOTAL	#T 11) 37)	- WEAFON: 086 .00 15.00 .00 5.53	090 000 000 000 5.00	NUC WEA 023 .00 .00 9.00 4.74	996 .00 .00 9.00 4.74	TESTING 100 .00 .00 30.00 15.79	101 .00 .00 .00	102 .00 .00 .00	014 .00 .00 .00 .00
4 7	- THTR NUC	- C	3/1						102	014
1 1 13	FACTOR	WT	086	090	023	096	100	101	.00	.00
1)		9)	.00	.00	.00	.00	, <b>0</b> 0	.00 .00	.00	.00
		10)	.00	.00	.00	.00	.00	.00	.00	.00
	COMM *(	22)	.00	.00	.00	.00	.00	.00	.00	.00
4,	Z(IFV (	39)	.00	.00	.00	.00	,00 ,00	.00	.00	00
5.	TARGETING	20)	.00	.00	.00	.00	.00	.00	00	ີດວ
	TOTAL		.00	.00	.00	.00	.00	• • • •	• • • • • • • • • • • • • • • • • • • •	•
. 7	.: THTF NUC		C3/1	- N	IAV					
1.5	EARTOR	พร	886	090	0.23	06%		101	107	014 00
		42	.00	.00	.00	.00	.00	.00	.00	
	CATV ELTEN *:			.00	.00	.00		.00	.00	.00 .00
'	CLUTE DET	75	-	.00	.00	.00		. <b>0</b> 0	.00	-
•	767.0	•	.00	00.	.00	.00	.00	.00	.00	.00
	4 - THTF NU		- (3/1	- 5	रक्षा,					
3.	C.A = THIR HUI FACTOR	- WT		090	023	096	100	101	107	014
		48		.00	.00	.00	.00	<b>. e</b> o	.00	.00
ĵ.	- FAUNT - ₹ - FAUNT TEN *		-	.00	.00	.00	. 00	<b>,0</b> 0	.00	.00
	: FAC & 11 TAR F : FLCTH NFTC *	. 70		.00	.00	.00	.00	.0€	.00	.00
•	नवांक	•	.00	.00	.00	.00	.00	,00	.00	.00
	worke Alli		- 07/1		TARGETIN	r.				
1.	3.5 - THTR NU	L WT	686	090		096	100	101	100	014
	FACTOR	( 29		.00	.00	.00		.00	.00	.00
				.00		.00		.00	.06	.00
	) PACV ELTRN *	1 14		.00		.00		.00	.00	.00
3	FLOTE OFTE *	( ) (	.00	.00		.00		.00	.00	.00
	TOTAL		.00	. 00		. • •	-			

# COMPLETED DATA SHEET WEDNESDAY 8/20/1980 10 41

	101	DE	WE	IGHT	172Y2 169		
1		THTR NUC	(WT	100)			
1.1	_	_	(WT	30)			
1,1,1	_	ENGINES	(WT	63)	0	0	0
1.1.2	_	AIRFRAMES	(WT	38)	0	0	0
1.2	-	WEAFONS	(WT	35)			
1.2.1	-	CASNG/MTRS	(WT	24)			
1.2.1.1	-	GUN3	(WT	41)	C	Ć.	0
1.2.1.2			(WT	41)	0	0	0
1.2.1.3	~	BMR/BMHLTS	(WT	181	G	0	0
1.2.2			(WT	33)			
1.2.2.1	-		(WT	40)	Ċ.	0	Ċ
1.2.2.2	~		(WT	210	0	0	0
1.2.2.3	~		(WT	38	0	()	0
1.2.3	~		(WI	14)		_	
1.2.3.1	_		(WT	33)	Ó	0	Ċ
1.2.3.2	-		(WT	11)	0	0	0
1.2.3.3	•-	• • • • • • • • • • • • • • • • • • • •	(WT	56)	Ú	L,	C
1.2.4	-		( WT	28			
1.2.4.1			(WT	20)	0	0	0
1.0.4.0	~	TESTING	(WT	439		_	
1.2.4.2.1	-	INSERCTION	(WT	11)	0	0	G
1.2.4.2.2	~		(WT	37)	O	0	0
1.2.4.2.3	-		( WT	531	0	0	0
1.2.4.3	-	SE NUE MAT	(WT	7)	0	C)	0
1.7.4.4	-		(WT	161	. 0	. 0	0
1.2.4.5	-	FAR TASSEME	(UT	14	12	10	10
1.3	-	03/1	CUT	357	_	_	_
1.3.1	-	<b>4</b> , —	(WT	93	O	O	0
1.3.2	-		(WT	101	_		_
1.3.2.1	-		(WT	42)	0	0	0
1.3.2.2	-		(WT	33)	Ç	0	ú
1.3.2.3	-		(UT	25)	0	0	0
1.3.3	-	•••	(WT	32)	0	0	0
1.3.4 1.3.4.1	-		(WT	39)			
	-		(WT	4R:	0	0	0
1.3.4.2	-		(WT	24)	<b>0</b>	0	Õ
1.3.4.3 1.3.5	_		TW)	79) 20)	0	Ú	C
1.3.5	_		(WT	29)	0	_	•
1.3.5.2	_	· · · · ·	(WT	-		0	0
1,3,5,3	_		(W)	14) 57)	0 0	0	<b>0</b>
1,3,3,3	_	ETC IN OL. 11	· W 1	20	(-)	0	O

# THTR NUC10 WEDNESDAY 8/20/1980 10:40

4	- THTR NUC							
, .	FACTOR	WT	061	091	00/	DISCI	CUMWT FL	_
• •		30)						. 6
		35)	.46	.46				
		35)	.00	.00	446	55.17 37.93	35.36	
3,		30)						
	TOTAL		.16	.16	.16	100.00	100.00	
4 4	- THTE NUC	_ E-1	ATEREM					
, , ,	FACTOR		061	091	004	DISCA	CUMUT FL	,
	-	63)		.00				. 11
	AIRFRAMES *C		.00	.00				
. ,		30)	• -					
	TOTAL		.00	.00	.00	6,90	29.72	
1.7	- THITE NUC	- ы	FAFIONS					
	FACTOR		061	091	000	P12C4	CHMWT FI	۲.
1)		24)	.00	.00	.00			
	INTERNALS (			.00				
	GUIDANCE (	(A)						
	NUL MENEUM (	28	.00 1.64	1.64	-	24 14		
٠,	TOTAL	<u>.</u> . ( · /	.4/	.46		55.17	34.9.	
	min.		. 4	. 40	4 ()		34.7.	
1.7	.1 - THIE NUC	~	MEARONS	- r	ASNG/HT	<u>,, , , , , , , , , , , , , , , , , , ,</u>		
	FACTOR	WТ					CHMUT FL	r.
• •		41)	.04	091 .00	.00			
		41)	.00	• • • • •	.00	3.45	3.47	
	HMECEMBETS *C			.00	.00	7 4	1.49	
31	TOTAL	10)	.00	.00 .00 .00	.00	40.74	1.49 8.40	
	TOTAL.		.00	• (7)	• (95)	10.54	7.4	
1.2.	.2 - THIR NUC	-	WEAF ONS	- 1	NTFRNAL.	2		
	FACTOR	WΤ	061	091	006	D1501	CUMMT FI	۲,
1)	WARHD/CONV *(	40)						
	FUZING *(		.00		.00	3.4° 3.45	2.48	
	FROFELNTS *C		.00					
٠.	TOTAL.	00,	.00	.00				
	• • • • • • • • • • • • • • • • • • • •				• • • • •			
1.2.	.3 - THTR NUC	_	WEAF-DNS		UIDANCE			
	FACTOR	WT	061			DISCI	CUMUT FL	۲.
1)	RADAF #(	33)	.00	.00			1.63	
2)	PASV ELTRN *(	11)	.00	.00	.00	3.45	.54	
	FLOTE OFTC #0			.00		3.45	2.77	
	TOTAL		.00	.00		10.34	4.95	
				*	•			
1.2	.4 - THTR NUC				UC WEAP			
	FACTOR	WT	061		906			ζ,
	ANAL/DEVEL *(		.00	.00	.00	3.45	2.03	
2)	TESTING (	43)		.00	.00	10.34	4.28	
3)	SF NUC MAT #(	7)		.00	.00	3.45	.68	
	WEAPONZATH *(		.00	.00	.00	10.34 3.45 3.45	1.58	
5)	FAR/ASSEME #(	14)	12.00	12.00	12.00	3.45 3.45	1.35	
	TOTAL		1.64	1.64	1.64	24.14	9.91	

# THTR NUC10 WEDNESDAY 8/20/1980 10:40

1.2.4.2 - THTR NO	uc -	WEAF ONS	-		PON - TE	
FACTOR	WT	061	091			CUMWT FLG
1) INSPECTION #(	11)	.00	.00		3.45	
2) HYDRODYNAM +(	37)	.00	.00	.00	3.45	1.58
3) NUC TESTNG *(		.00	.00	.00	3.45	2.25
TOTAL		.00	.00	.00	10.34	4.28
10111		*				
1.3 - THTR NUC	- C3/	I				
FACTOR	WT	061	091	00s	DISCI	CUMWT FLG
	9)	.00	.00	.00	3.4%	3.17
27 NAV (	10)	.00	.00	.00	10.34	3 47
3) COMM +C		.00	.00	00	3.45	7.9.
	30)	.00	.00	.00	10,34	13 87
5 TARGETING		.00	.00	.00	10.34	6.07
TOTAL		.00	.00	.00		
13,77						
1.3.2 - THIR NUC	- C	र ′ा	- NA	16		
FACTOR	WT	061	1001			DUBLIT FLG
1. RADAR	47	.00	.00	.00	3.4"	1.41
1) RADAR **	77,	.06	.00	.00	3.45	1.16
3) FLOTE OFTE *C	26	.00	. 0		3.4"	
TOTAL		.00	06	.00	10,34	
16146						
1.3.4 - THTR NUC	- C	37 I	17	(FV		
EACTOR	ШŤ	07.1	091	006	DISCA	CHMUT FLG
10 RADA5 ★/	48	.00	.00	.00	3.4%	4.60
DI FASY DUTEN **	24	000	.66	.00	₹. Δ*.	3.30
3 - CLOTE OFTO *1		Ōυ	.00	.00	3.4%	3.90
TOTAL	-	.07	.00	.00	10.34	13.87
1.3.5 - THIR NOO	· C	द <u>।</u>	- T	ARGETING	, '	
FACTOL	W7	(10,1	(+÷+)	004	PICCI	COMMIT FILE
1) RADAL *:	297	.00	.00	.00	3.45	1.9ઇ
2) PACY ELTEN *(	14:	. ( )				. 44
3) ELCTH OFTC *(	57/	.00				3.94
TOTAL		.00				6.93
·- · · · ·						

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